The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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THE

UNION RAILWAY CARRIAGE AND WAGON COMPANY

(LIMITED).

(LATE WHITTLE, RUSHFORTH, AND CO.),

CHORLEY, LANCASHIRE.

Incorporated under the Companies Acts of 1862 and 1867, whereby the liability of the shareholders is limited to the amount of their subscriptions.

Capital £200,000, in 10,000 Shares of £20 each.

£2 payable on application; £5 on allotment; £5 on 15th February, 1875. Future calls as required, at intervals of not less than two months.

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BENJAMIN MARSDEN, Esq., Messrs. Samuel Marsden and Son, Manchester.
WILLIAM RUSHFORTH, Esq., Chorley, Lancashire, } MANAGING
JOHN WHITTLE, Esq., Chorley, Lancashire, } DIRECTORS.
Another Director to be elected by the Shareholders at First General Meeting.

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Messrs. BARCLAY, BEVAN, and CO., Lombard-street, London.

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Messrs. LINDOW, KING, and CO., 5, Angel court, Throgmorton-street, E.C.

SOLICITORS.

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AUDITORS.

Messrs. JOHN F. LOVERING and CO., Gresham-street, London.

SECRETARY.

Mr. THOS. G. HAMER.

LONDON AGENT.

THOS. GOWER, Esq., 46 and 47, Coal Exchange, Lower Thames-street, London.

REGISTERED OFFICES AND WORKS,—CHORLEY, LANCASHIRE.

PROSPECTUS.

This company is formed for the purpose of acquiring and extending the established business of the works of Messrs. Whittle, Rushforth, and Co., well known as the Union Railway Wagon Works, situated at Chorley, Lancashire, established in 1866 for building, selling, and letting every description of railway and tramway rolling stock, also wagons for the conveyance of goods, minerals, &c., on purchase and leases, to railway companies, colliery proprietors, merchants, and others.

The works are substantially erected on about 2 acres of land (this may be increased to five if necessary), of which 4300 square yards are freehold, and 5028 held on lease for a term of 999 years, at a nominal rent of £52 7s. 6d. per annum, and are situated in a most eligible position for making and repairing rolling stock, being in the centre of the Lancashire collieries and iron mines, and within easy access of the Durham, Yorkshire, Lincolnshire, Cleveland, Midland, and South Wales iron and coal fields.

These works have been most succesfully carried on by Messrs. Whittle and Rushforth, are in full operation, and comprise wagon shops, sheds, drilling machines, shearing machines, steam hammers, sawing, planing, and all necessary machinery for wagon and rolling stock building, driven by 12 steam-engines, all nearly new, in first-class condition, and are capable of turning out 50 wagons per week; there are also suitable offices, warehouses, workmen's cottages, stores, and railway sidings throughout the works in direct communication by railway with all parts of the kingdom.

The books and accounts have been examined by the accountants, Messrs. John F. Lovering and Co., of No. 35, Gresham street, E.C.; the result of such examination shows the business done at the works from the 1st January, 1870, to May 30th, 1874, amounts to £268,480 19s., and the following figures, which are vouched for by the accountants, show the gradual increase of the business since Jan. 1, 1870:—

Business done 1st January to December 31st, 1870		£19,713	6 7
" " "	1871	34,447	6 6
" " "	1872	65,020	17 6
" " "	1873	92,708	9 11
" " May 31st,	1874	56,590	18 4

The amount of £56,590, being only for five months in the year 1874, is at the rate of £135,000 per annum, the profits on the above have been upwards of £30,000, and the accounts up to November 12th, 1874, can be seen at the offices of the solicitors to the company.

This company will continue these operations under the greatest advantages, aided by largely increased working capital, and it is confidently expected under the thoroughly practical experience of the venders (who will continue to act as managing directors), that steady and most satisfactory dividends will be realised.

An important feature in the formation of this company will be the establishment of leasing operations in conjunction with the wagon building department, and the reason for converting this already flourishing concern into a public company is that these leasing operations require a larger working capital. The increasing demand for wagons on purchase and hiring leases is well known, and has been successfully carried out by the Midland, the Birmingham, the Gloucester and other wagon companies, as will be seen by reference to the subjoined table of their present market value, taken from "The Investors' Monthly Manual" for December, 1874—

—	Amount of Share called up.	Present value of Share.	Last Dividend.
			Per cent. per ann.
Birmingham Wagon Company	£10	£18	15
Bristol and South Wales Company	4	6½	11
British Wagon Company	10	14	10
Gloucester ditto	10	15½	10
Lancashire ditto	10	14¾	10
Metropolitan ditto	5	8 15-16	20
Midland ditto	50	91	15
North Central ditto	20	34	14
Railway Rolling Stock Company	10	14	13
Scottish Wagon Company	10	12 1-16	8
Sheffield ditto	15	20¼	10
Yorkshire ditto	10	15	10
Warrington ditto	10	16	10

The general system upon which this as well as all other wagon companies conduct their business is so well understood that it will suffice to call attention to the above list, and to the fact that wagon companies already established and well managed have been exceedingly successful, paying large and steady dividends to their shareholders, and at the same time forming considerable reserve funds.

Railway wagon works are well supplied with orders, and the opening and development of new collieries, and other mineral properties in the United Kingdom, and the rapid construction of foreign railways, combine to increase the large demand for all descriptions of rolling stock.

The works will be transferred to the new company in full working condition, with all beneficial contracts, and will include the whole of the freehold and leasehold land, and buildings thereon, together with the modern and valuable plant, machinery, fittings, sidings, and goodwill. The property was transferred to the company on the 24th November, 1874.

The stock-in-trade is to be taken by the company, and paid for at a fair valuation.

The contract price of the works to the company, including land, buildings, plant, machinery, &c., will be £40,000 in cash, and £15,000 in 750 ordinary shares of £20 each, fully paid-up, and the vendors agree to bear all expenses incidental to the formation of the company up to allotment.

The estimate on which this sum is based is from a carefully made valuation of the freehold and leasehold land, buildings, plant, machinery, fixtures, sidings, and goodwill as a going concern, by Thos. Pringle, Esq., Newcastle-on-Tyne.

The directors have great pleasure in stating that Messrs. John Whittle and William Rushforth, who have conducted this business so successfully since its establishment, have consented to remain with the company as managing directors for not less than three years certain, their remuneration to be fixed by the directors.

The only contract entered into is between John Whittle and William Rushforth, of the one part, and Thomas Greenhalgh Hamer, as a trustee of the company, on the other, which, with a copy of the Articles of Association, the detailed valuation of Mr. Pringle, and copies of the accounts, may be seen at the offices of the solicitor to the company.

Prospectuses and forms of application for shares may be procured from the bankers, brokers, solicitors, and of the secretary at the offices of the company, at Chorley, Lancashire, and from the London agent.

Each application for shares must be accompanied by a payment of £2 per share on application.

Should no allotment be made, the deposit will be returned without deduction.

Chorley, Lancashire.

YORKSHIRE RAILWAY WAGON COMPANIES' REPORTS.

Extract from "The Railway News," August 8th, 1874.

The various railway wagon companies, which for some time have been looked upon as excellent modes of investment, have again done a very good business during the half-year, and are able to lay before the shareholders very satisfactory reports and good dividends. The number of wagons now at work connected with the several agencies in Yorkshire is very large, and compares favourably with those at work in past years. Taking the Yorkshire Railway Wagon Company first, on account of its seniority, we find from its 22nd half-yearly report that there are 5188 wagons at work, as compared with 3918 at the close of the same half-year in 1873. The society had a number of contracts on hand, in addition to others in course of construction. After paying £579 to the reserve fund, there is a balance (including £1264 from last account) amounting to £4402. This is very satisfactory, and compares favourably with the available balance due last June, which amounted to £3537. The directors have again pleasure in recomending a dividend of 10 per cent. per annum, free of income tax, which will leave a balance of £1453 to be carried to the next account. The balance handed over to the following account in the corresponding half-year was £997. The North Central Railway Wagon Company, having its head quarters at Rotherham, meets its shareholders in a very respectable manner. It appears the capital of the company is £197,040, of which £122,105 is paid up. During the half-year 1311 wagons have been leased, while 580 have been written off. The total value of the wagon stock, after deducting depreciation, amounts to £438,698, being an increase of upwards of £54,000. The rental for the half-year shows an increase of nearly £6000, whilst the expenses exhibit an appreciable difference. The same dividend as was declared at the end of June last year is again offered to the shareholders—viz., 10 per cent. per annum, with a bonus at the rate of 4 per cent. per annum, free of income tax, leaving £700 to be placed to the credit of the reserve fund, which with another balance will be raised to £5406 6s. 2d. The British Wagon Company, which also hails from Rotherham, is also in a very good position. During the half-year the addition to the wagon stock has been 622, whilst 118 having been redeemed, leaving the net stock 3325. The number of wagons in the hands of the company at the close of the corresponding half-year was 2437. A very important addition has been made to the debenture fund, which now amounts to upwards of £90,000. The profits of the half-year, including the balance from last account, is £3152. The available balance at the close of the corresponding half-year of 1873 amounted to £2326. The directors again recommend a dividend at the rate of 10 per cent. per annum, free of income-tax, leaving £500 to go to the reserve fund and £238 to the next account. The Sheffield Wagon Company (Limited) in their report state that 720 wagons have been purchased from the company during the half-year, making a total of 3981 wagons, out of which 76 have been redeemed. The total number of wagons at the close of last half-year was 2799. A profit of £7860 (including £501 from last account) has been made, which, after being charged with all working expenses, and the sum of £350 to increase the reserve fund, leaves a balance of £3740 available for dividend. The directors recommend that a dividend at the rate of 15s. per share on the first issue, 10s. 6d. on the second, 7s. 6d. on the third, 5s. 4d. on the fifth, 4s. 4d. on the sixth, and 1s. 6d. on the seventh issue be declared. The dividend amounts to 10 per cent. per annum free of income tax, leaving £865 to be carried to the next account.

THE UNION RAILWAY CARRIAGE AND WAGON COMPANY

(LIMITED).

(LATE WHITTLE, RUSHFORTH, AND CO.), CHORLEY, LANCASHIRE.

To be retained by the Bankers.

To the Directors of the Union Railway Carriage and Wagon Company (Limited), Chorley, Lancashire.

GENTLEMEN,—Having paid to your Bankers the sum of £ , I hereby request that you will allot me shares in the Union Railway Carriage and Wagon Company (Limited), and I hereby agree to accept the same, or any smaller number of shares that may be allotted to me, and to pay the sum of £5 on allotment, and the further calls as made.

Name in full .....
Address .....
Profession or occupation .....
Date ..... Signature .....

SUBSCRIPTIONS are INVITED for 17,460 SHARES, of £5 each, of the

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Capital £200,000, in 40,000 Shares of £5 each,

Of which shares to the amount of £112,700 have been already allotted among 327 shareholders.

Half yearly interest at the rate of 10 per cent. per annum has been paid since the establishment of the company in December, 1871.

PAYMENTS—£1 per share on application, £1 per share on allotment. Further calls at three months' notice, as required.

The principal business of the West of England Company consists in the chymical treatment of the various metallic ores of Devon and Cornwall, and more especially to what is termed arsenical pyrites, a mineral which occurs in abundance in the immediate vicinity of the company's works.

The present issue of capital is for the purpose of enabling the company's works to be completed to an extent which shall admit of the treatment of 1500 tons monthly, and of the extraction of all the valuable substances contained in the ore. If this be done, the total net revenue from the pyrites department would not be less than £90,000 yearly, which, were one-half even to be written off for reserves and contingencies, would leave a dividend of 22 per cent. per annum upon the total capital of the company.

Between 300 and 400 shareholders have joined the company, many of whom have from time to time personally visited the works, and have subsequently increased their holdings; and the directors have every confidence in recommending the shares of the company as a sound and profitable investment, and one which will bear the strictest scrutiny.

Applications for shares, together with the deposit, should be forwarded to the Bankers or the Secretary of the company, at the offices, No. 8, Old Jewry, London, E.C.

THE PATENT COTTON-GUNPOWDER COMPANY

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Are now PREPARED to SUPPLY their BLASTING POWDER, No. II., in bulk and in cartridges of all sizes. This powder is superior to any mining explosive available to the public, or known to science.

ITS MANIPULATION IS EASY,
ITS ECONOMY GREAT,
ITS SAFETY ABSOLUTE.

It can be sent by all railways and the principal canals at gunpowder rates.

Printed details and prices will be transmitted on application, and a representative of the company will attend on requisition from mine superintendents or quarry owners desirous of judging of the value of this new explosive.

A practical demonstration of its properties and method of use will be given at the Oare Works, Faversham, Kent, on Wednesday, the 3rd February. Probable customers desirous of seeing its advantages illustrated may obtain special cards of invitation by application to the Secretary, 23, Queen Anne's-gate, Westminster, on or before Thursday, the 28th January.

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This company is now fully registered, and in full operation, doing at present a remunerative business, and capable of great extension.

25 per cent. dividend may be fairly anticipated.

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SOLICITORS.

Messrs. SUTTON and ELLIOTT, 17, Brown-street, Manchester.

AUDITORS.

Messrs. NICHOLSON and MILNE, King-street, Manchester.

Prospectuses and Forms of Application, with Testimonials, may be had, and shares taken up, by applying to the Bankers, Solicitors, Auditors, or to the Secretary, Mr. PHILIP GRANT, at the registered office of the company, 60, Market-street, Manchester.

A limited number of shares only remain to be taken up for the present.

Responsible agents wanted in all large towns.

THE ROCK-BORING CONTRACT COMPANY.

DARLINGTON'S PATENT ROCK-BORING MACHINERY.

OFFICES,—2, COLEMAN STREET BUILDINGS, MOORGATE STREET, LONDON.

FOR TUNNELLING, DRIVING LEVELS, CROSS-CUTS, AND SINKING SHAFTS.

ON SALE, a PAIR of MARINE ENGINES, 30 nominal horse each, suitable for a colliery; also TWO BOILERS; all by FAIRBAIRN.
Apply to HENRY BAXLEY and Co., Chapel-street Mill, Ancoats, Manchester, where they may be seen working.

ON SALE, TWO CORNISH BOILERS, 30 ft. by 7 ft. diameter. Two flues through each. Safe at 60 lbs. pressure working.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

ON SALE, ONE PAIR of 18 in. high pressure HORIZONTAL ENGINES, for winding, fitted with slot link motion. First-class pair of engines.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

ON SALE, ONE PAIR of 15 in. HORIZONTAL WINDING ENGINES, with slot link motion. Will be sold cheap.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

ON SALE, ONE 25-horse power double cylinder PORTABLE ENGINE, fitted with slot link motion for winding.
ONE 20-horse power double cylinder PORTABLE ENGINE.
Will be sold cheap, and are in first-class order.
Apply to HENRY PARKINSON, Foundry-street Boiler Works, Bolton, Lancashire.

ON SALE, ONE 8-horse power PORTABLE ENGINE, fitted up with winding drum; slot link motion; made by Clayton and Shuttleworth. Price £130.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

ON SALE, ONE PAIR of 25-in. coupled HORIZONTAL WINDING ENGINES, with drums and brake gear. Also, ONE PAIR of 22 in. ditto. Will be sold cheap.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

ON SALE, ONE STRONG WELL-BUILT CONDENSING BEAM ENGINE, by a first-class maker, equal to new; cylinder, 36 in. bore, 5 ft. stroke. Can be seen standing, and will be sold cheap.
ONE close-built self-contained CONDENSING BEAM ENGINE, stands on independent bed on six columns; cylinder, 28 in. bore, 4 ft. stroke. As good as new. Can be seen standing, and will be sold cheap.
Apply to HENRY PARKINSON, Foundry street, Bolton.

BOILERS ON SALE.—FOUR GALLOWAY'S PATENT BOILERS, 30 ft. by 7 ft., safe to work at 70 lbs. on the square inch.
TWO BOILERS, 28 ft. by 7 ft., with two flues through.
TWO BOILERS, 26 ft. by 7 ft., two flues through.
ONE BOILER, 30 ft. by 7 ft., two flues through.
ONE BOILER, 15 ft. by 6 ft. one flue through. Also, several smaller sizes.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

ON SALE, ONE 16-horse power double cylinder PORTABLE ENGINE, for winding.
ONE 12-horse power PORTABLE ENGINE.
ONE 10-horse power PORTABLE ENGINE.
ONE 8-horse power PORTABLE ENGINE.
ONE 6-horse power PORTABLE ENGINE.
Equal to new, and will be sold cheap.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

ON SALE, ONE PAIR of 25-in. HORIZONTAL WINDING ENGINES.
ONE PAIR of 18 in. HORIZONTAL WINDING ENGINES.
ONE PAIR of 16 in. HORIZONTAL WINDING ENGINES.
ONE PAIR of 15 in. HORIZONTAL WINDING ENGINES.
ONE PAIR of 12 in. HORIZONTAL WINDING ENGINES.
ONE PAIR of 10 in. HORIZONTAL WINDING ENGINES.
ONE PAIR of 7 in. HORIZONTAL WINDING ENGINES.
The above engines are now ready for delivery, and fitted with winding drums and brake gear to each pair of engines.
Apply to HENRY PARKINSON, Foundry-street, Bolton.

DOUBLE-ACTING STEAM PUMP WITH ONE RAM.—An improved construction of double-acting pump is at present being extensively introduced by Messrs. FRANK PEARN and Co., of Hulme, Manchester, by whom it has been patented. The ram or plunger is actuated by an ordinary engine placed above; it is packed at the centre of the pump by hemp or other packing, and this acts for both ends of the ram. The gland securing this packing is so arranged that it fits outside a portion of the upper barrel of the pump, and does not touch the plunger; the packing is put down the stuffing-box, the bottom of which slopes off beneath the end of the upper barrel, and the packing can then press up to the pump plunger. The advantage attending this arrangement is that, no matter how unequally the gland nuts may be screwed up, still, as the gland does not touch the plunger, no straining or injury can be done to the latter. A rod passes from the plunger up through a stuffing-box on the cover of the upper pump barrel, and is united to the piston rod, &c.; two foot and two delivery valves are provided, located within the columns forming the framing, while the section chamber common to both is in the bed-plate, which is simply a cast-iron box. The foot and delivery valves for the lower barrel are, of course, located below, while, with the view of making the space between the foot valve and the plunger as small as may be, the valves for the upper barrel are set as high as possible. The pump plunger-rod is united to the steam-piston rod by a cast-iron piece, which at its upper end has a pivot fixed for the tail end of the connecting-rod, which connects with the fly-wheel shaft crank. The water enters the lower pump barrel upon the ram being drawn upwards, and at the down stroke the lower barrel is emptied and the upper barrel filled, so that a continuous stream is maintained, and the pump works in almost perfect equilibrium. The advantages claimed for the patent pump as compared with the double-acting piston pump are that they can be packed in a few minutes, in the simple way as single-acting ram pumps, with ordinary packing, without being taken to pieces. The pumps are easily managed, even by the most incompetent men, all parts being of easy access and ready adjustment. The ram cannot be injured by unevenly screwing down the gland. From their compact form and satisfactory working they are admirably adapted for industrial and general purposes, and form an excellent steam fire-engine. The columns support the steam cylinder, and act as air vessels; the cylinders are fitted with metallic pistons; the piston, valve, and pump rods are of steel, working through brass glands and bushes; the stroke is limited by a crank; the valves are of brass, and lift vertically, each being provided with a separate door. As nearly 500 gallons per hour can be raised with a pump costing but 22*l.*, a 54*l.* pump will raise nearly 3000 gallons per hour, and as a 380*l.* pump will raise 34,000 gallons per hour there are almost innumerable operations, both underground and at surface, connected with mining for which they would prove of the greatest value.

REDUCING ORES.—Mr. J. IRELAND, of Manchester, has patented a plan to reduce ores of manganese and other metallic oxides to a condition of spongy metal by feeding a mixture of ore with carbonaceous matter into an annular passage at the top of a reducing vessel, and allowing it to descend by gravity along the vessel, subject for a certain distance to the heat of an annular flue, in which there is a combustion of gas and air admitted by side apertures, and for a further distance to the cooling action of an iron casing water-jacketted, the metallic sponge being removed from time to time in portions through a door at the bottom of the casing.

Lectures at the Royal School of Mines.

THE GEOLOGICAL HISTORY OF SOME OF THE MOUNTAIN CHAINS AND GROUPS OF EUROPE.

Prof. RAMSAY, F.R.S., in delivering his second lecture on "The Geological History of some of the Mountain Chains of Europe," reminded his audience that in the last lecture he had proved that the Scandinavian chain and its outlying mountains, the Grampians, were the oldest known mountain chains of Europe, and the date of their upheaval was fixed before the deposition of the Old Red Sandstone Devonian rocks, since the latter lie "unconformably on the Silurian and metamorphic strata of the mountains." What I wish to impress upon you, he said, with regard to these metamorphic rocks, is the fact that although they have been very powerfully acted on, and undergone great changes, yet the constituents which enter into their present condition were present in the original strata, and that simply chemical changes in the rocks themselves have taken place. The conglomerate belonging to the Old Red Sandstone division, which was formed on the borders of the Scandinavian and Scotch mountains, was evidently derived from the waste and degradation of those mountains, since every pebble can be identified as belonging to those rocks; and this and the unconformability mean a great deal, for they completely prove not only the previous immense disturbance of the mountain chains, but also the vast amount of time which must have elapsed between the deposition of the two strata. I do not mean to say that these mountains were the only parts of Europe, then upheaved into dry land, and contrary seems to be the case, but the upheaving force over the great part was only sufficient to form dry land, and not mountain chains. Over that old land the Old Red Sandstone was deposited in lakes, sometimes salt, sometimes fresh. In the Russian area it seems that the waters were salt, or perhaps brackish, since in this area occur vast beds of rock salt, and many springs rising from these strata are brine springs.

The next thing I have to do is to endeavour to give you a brief sketch of those great geological formations that were formed between the period of the upheaval of the Scandinavian mountains and the period of the upheaval of the next chain we have to consider—the Ural mountains. These formations are (1) the carboniferous series, comprising the mountain limestone and the coal measures, among which latter beds coal occurs; and (2) the Permian, consisting of beds of sandstone, conglomerate, and magnesian limestone. In the South of England and Wales, round the South Wales coal field, for example, are found masses of limestone which in South Wales attain a thickness of 2600 ft., and in the Forest of Dean are seen to dip under the coal measures in a basin-like form. The limestone is formed entirely of marine shells, sea lilies, and other marine bodies, and there is no trace of anything connected with the land in it. The manner in which such rocks are formed is briefly as follows:—The rain falling on the land has usually absorbed a small quantity of carbonic acid, which gives the water percolating into the earth great power of dissolving the rocks, and especially the carbonate of lime they contain. Thus the water of all springs is more or less hard on account of these salts in solution; these find their way into the rivers, and are so carried out to sea, and there the moluscs, corals, &c., abstract the carbonate of lime from the water to form their shells or skeletons. By degrees they die, and in certain cases their remains accumulate layer upon layer till, as in the case of the carboniferous limestone of old times, these layers may accumulate to a thickness of 2600 ft. Above this limestone lies the coal measures, which consist of a great number of alternating beds of sandstone, shale, fireclay, and beds of coal. The whole thickness of the strata in some coal fields is as much as 11,000 or 12,000 ft., containing 100 beds of coal. Under each bed of coal you always find a bed of fire-clay. Why is this? Sir W. Logan and Mr. Binney were the first to explain this; they concluded that the beds of fire-clay were the original soils on which the plants grew, by the lifa and death of which the beds of coals were formed. Just as in the present day in marshy tracts plants grow and grow, and in time a peat moss is formed, so they concluded that coal in its day must have passed through the stage of peat, and that these clays were the moist soils on which this peat moss was formed. These gradually sank down, and beds of sandstone and shale were formed over them; then came another favourable time, and fire-clay and peat moss and forest were again formed, and so the process went on; and now we have evidence of this alternation of land and water periods. In the coal field alluded to above we have evidence of no less than 100 periods of land surfaces. The moral I would draw from this is that the deposition of the carboniferous rocks represents a long period of time; if man had been living he would doubtless have thought each one of these 100 forests primeval, just as poets now call the forests of America primeval. In some of the coal measures of England are beds containing fresh water shells, and it is supposed that at that time vast rivers wandered through broad flats, comparable in size, perhaps, to the Ganges or the rivers of North Asia.

The next formation is that of the Permian, which lies above the coal measures; it was formerly called Lower New Red Sandstone, but Sir R. Murchison, after studying it very carefully as developed in Russia, showed that the rocks had no very intimate relation to the secondary series, but were closely connected with the Primary, hence he separated these rocks from the New Red Sandstone, and proposed for them the name Permian—from the kingdom of Perm, where they are well developed; they are well seen in England, near the Warwickshire, Coalbrookdale, Staffordshire, and other coal fields, and also in the Vale of Eden. These Permian strata throughout England generally lie unconformably upon the coal measures. In the Vale of Eden and other districts they consist of red sandstones and red marls, as red as the Old Red Sandstones, only, perhaps, a little brighter in colour; in the North of England they consist at the base of magnesian limestone, with here and there beds of red marl interstratified. The fossils found in them are, to a great extent, remains of fishes, fishes with polished bony scales, and thus also they have those relations to those fishes I have spoken of in connection with the Old Red Sandstones, the bony pike, &c. Some of the genera are identical with those of the coal measures, but the species are different, and the few fossil shells in the magnesian limestones contrast greatly with their abundance in the carboniferous limestone, 30 or 40 species in the former to 1800 in the latter.

Like the Old Red Sandstone rocks, I believe the Permian were not deposited in the sea, but in great inland waters; let me mention a few of the reasons for this belief. In the first place, there is the red colour, which is found on examination to be due to the fact that each grain of the rock is coated with a thin pellicle of peroxide of iron. Now, there is no reason why peroxide of iron should be deposited in the open sea, but one can understand that if rivers carry down peroxide of iron in solution into lakes it might be deposited there, and we know such is the fact in some of the lakes in Sweden, which are actually farmed for the deposits of this peroxide of iron. Secondly, the fish are of such a kind as are more likely to have lived in inland lakes (and probably fresh water) than in the open sea; and, thirdly, we find a great quantity of land plants in these rocks. Fourthly, the limestone is not pure carbonate of lime, but has mixed with it carbonate of magnesia, sometimes as much as 40 to 50 per cent. Now, we know of numbers of creatures using pure carbonate of lime for their shells or skeletons, but we know of no living creature which uses carbonate of magnesia for this purpose. If, however, these rocks were deposited in inland lakes, salt or fresh (I believe they were salt), we can understand how this carbonate of magnesia might come to be deposited. The various salts carried into lakes which have no outflow by rivers remain behind when the water is evaporated, and in time these become concentrated in the water, the lake becomes more and more salt (*e.g.*, Dead Sea and Great Salt Lake), until finally the water can hold no more in solution, and precipitation must take place; this is the origin of beds of rock salt. I have been struck with the few species of animals now to be found in the Caspian sea, and also the analogy between their general features and those which characterise the fauna of the magnesian limestone of Germany, England, and Russia. Lastly, the shores of these inland waters were frequently laid dry, as evidenced by the frequent occurrence of the footprints of animals preserved in the rocks.

The Ural Mountain chain is an exceedingly interesting one, though not rising to any great height, probably not more than 6000 ft., but it forms the line of demarcation between the great plains of Central Europe and the still larger plains which extend throughout a large portion of Asia. What is the age of these mountains as a range? The Ural Mountains consist in great part of metamorphic rocks, granites (which some, however, do not consider metamorphic), large masses of gneiss, both on the east and west flanks, and large masses of limestone, which Sir Roderick Murchison proved to be carboniferous limestone, with other carboniferous rocks, which are exceedingly contorted and disturbed, so violently, indeed, in some cases as to quite reverse the dip. Throughout the whole of Russia the carboniferous strata lie almost horizontal; eastward towards the Ural Mountains they rise, and nearer to the chain are violently disturbed. But the Permian strata are not at all disturbed, and, therefore, we see that the strata forming the Ural Mountains were thrown up and disturbed before the deposition of the Permian rocks, just as the Scandinavian mountain chain was upheaved and disturbed before the deposition of the Old Red Sandstone. The Permian strata vein from the White Sea down towards the southern end of the Urals, and at their base, is frequently a great thickness of conglomerates and beds of sandstone and marls, and these often interstratified by beds of magnesian limestone, and beds of rock salt and gypsum. From the nature of the pebbles composing the conglomerates, it is ascertained that these conglomerates consist entirely of various kinds of rocks which enter into the constitution of the Ural Mountains, and, therefore, we conclude that they were formed from the waste and degradation of those mountains. The fact that the conglomerates were formed from the rocks of the mountains, and that they are all rounded and waterworn, proves that those mountains were upheaved before the deposition of the Permian, and thus we are enabled to get geological data for the elevation of this chain—later than that of the Scandinavian chain.

Furthermore, there is a great resemblance between the Permian beds of Russia and the Permian strata of Great Britain; to a great extent the rocks are red, the fossils are in many cases of the same species, and there also occur in both beds of gypsum and rock salt, proving to my mind that they were deposited in inland salt lakes. There are, indeed, some marine interstratification, but these are quite consistent with the fact that on the main the rocks were formed in inland waters. In the Old Red Sandstone beds, as I pointed out, we have evidence of the beginning of a great northern continent, in the coal measures we have great evidence of a terrestrial epoch, while in the Permian there is still evidence of this same continent, having undergone great changes certainly, but still a continuation of the same continent. One point I would like to insist on, in speaking of the upheaval of this mountain chain, is the vast interval of time which must have elapsed between the upheaval of the Scandinavian and of the Ural Mountains. For in the Old Red Sandstone or Devonian is scarcely any specimens of fossil whatever, which passed into the carboniferous, between the carboniferous and the Permian are no species in common, or it may be only one or two—that is, the life of the Devonian died out before we get fairly into the carboniferous period, and that, again, died out before we get into the Permian. If I had time I could show that in America, too, at this period some similar continental conditions prevailed to those I have spoken of in Europe.

CERTAIN APPLIANCES FOR ENABLING PERSONS TO BREATHE IN POISONOUS VAPOURS.

Capt. SHAW, chief officer of the Metropolitan Fire Brigade, read a paper on this subject at the Society of Arts, on Tuesday, Prof. Tyndall, F.R.S., in the chair. Attempts had been made in ancient and modern times to enable persons to enter safely into places full of smoke or noxious vapours, but very few had come into permanent use. Their great enemies in this way were smoke and those innumerable poisonous vapours created by intense heat, which were designated under the general title of mephitic gases. To enable a man to enter into and remain in a place strongly impregnated with mephitic or noxious gases two courses were open—one was to supply him with pure air from an external source; the other to provide him with the means of filtering for himself such air as he found.

The paper then proceeded to describe a few of the best known appliances, commencing with the breathing tubes. Another mode was to carry an air bag and two tubes, which contained a supply of air that would last several minutes. The next apparatus was the smoke jacket, consisting of a blouse of cowhide, mounted with a hood that completely enveloped the wearer's head. Air was driven into the jacket by means of a pump outside. The next appliance was the smoke cap, by means of which a man was able to breathe when working in dense or poisonous vapours. It partially closed the nose, and provided for the mouth a light close-fitting filter with valves, and for the eyes a complete cover which would act as a protection, without obstructing the sight, the whole being capable of being put on and adjusted for use in a few seconds by the wearer, without aid from anyone else. The filter which separated the pure air from the smoke or noxious vapours, and which constituted the specialty of the apparatus, was the invention of Prof. Tyndall, who had in the kindest and most liberal manner placed it at their disposal.

The paper then described the hood in detail, and two firemen out of a number who were present put on one each. The hood fitted close to the head, the lower flap, or apron part, being tucked away under the collar of the tunic. The respirator, which consisted of a valve-chamber and filter-tube about 4 in. long, was screwed on outside, with access to it on the inside by a wooden mouthpiece. The charge for the filter consisted of the following materials, which were put in with the tube turned upside down, and the lower valve removed:—Half-an-inch deep of dry cotton wool, an inch deep of the same wool saturated with glycerine, a thin layer of dry wool, half-an-inch deep of fragments of charcoal, half-an-inch deep of dry wool, half-an-inch deep of fragments of lime, and about an inch of dry wool. The remainder of the paper was devoted to a description of Aldini's apparatus for enabling men to pass safely through furnaces, and even to remain in them for several minutes. One or two questions having been asked, Prof. Tyndall then stated the various steps by which he had been led up to this fireman's respirator. Some years ago he chanced to be making some very delicate experiments, in which he found the dust floating in the London air a great nuisance. He required perfectly clear air, through which a strong column of light could be passed without showing any of the small motes floating in the air. He had, therefore, adopted the simple plan of passing the air through cotton wool—a plan which had been used by Schröder, Pasteur, and others.

On reflecting upon the subject, and looking at the operations of the men under Captain Shaw's command—seeing these firemen risking their lives, he thought that something might be done to enable them to feel their way better towards the lair of their enemy. He knew that cotton wool must be very effective in mitigating the evil, and he obtained an apparatus from Glasgow with an inlet and an outlet for the passage of breathing and exhalation. He then applied it, and went into the midst of a very pungent smoke, and he found that the cotton wool mitigated matters so much that he could remain a greater amount of time in an impure atmosphere than he could without it. But for his lungs the simple cotton wool was not sufficient, and he was induced, in consequence of the experiments of M. Pouchet with glycerine, to associate glycerine with the fibre of the cotton wool. He found that that was a considerable help in mitigating the smoke, and he could live in it a considerable time longer than before. Still, he found himself irritated by a certain amount of hydro-carbon developed in vapours, and it occurred to him that charcoal would exercise a similar power on such vapours as the glycerine did on the smoke particles. After putting them together he found that he could go into an atmosphere of the most atrocious character, and could live for half-an-hour in a place where he could not, unprotected, have existed for one minute.

In that stage of the affair, hearing of Captain Shaw's practical action all over London, and of the vigour, care, and firmness he had always shown in carrying out his duties, he applied to him, and asked him whether he thought that anything of the kind would be useful to his firemen? Captain Shaw wrote back, saying that the thing would be of the greatest use, and that a great many things had been tried, and were found to be failures. Capt. Shaw came to the Royal Institution, and brought some of his men with him. He did not say to his men, "Do you go in," but he went into foul air himself, and he was perfectly satisfied that the invention could be turned to good account. He (the Chairman) was glad to observe the exceeding care Capt. Shaw had bestowed upon the simple idea, and the way in which he had brought it into a practical form. He had no doubt that as so many good men were occupied with the further development of this respirator, it would ultimately become a benefit to humanity, and contribute greatly to the saving of life and property from fire.

MINING AND SMELTING IN SARAWAK.*

BY THOMAS DOWN, JUN.

The territory of Sarawak, on the north-west coast of Borneo, has for many years produced large quantities of antimony ore, and more recently cinnabar has been discovered. Sarawak, the principal town and seat of Government, is about 30 miles from the mouth of the river of the same name. The antimony mines are at Jambusan, about 30 miles from Sarawak. The canoe journey to Busau, the landing-place, occupies five to eight hours, and the mines are about 5 miles distant. A tramway, constructed entirely of wood, has been made to the mines to facilitate the transport of the mineral; the rails are pieces of billian wood, each 9 ft. long, 5 in. deep, and 2½ in. broad; these are notched into sleepers, three of which are laid for each rail. The ore, principally grey sulphide of antimony, is found in veins or lodes in the limestone mountains, also in boulders, some of considerable size, in the valleys. Grey oxide of antimony and metallic antimony is sometimes found, but the quantity is comparatively small. The boulders from which most of the ore is at present obtained are very plentiful, and more easily worked than the veins. The boulders are sometimes distributed on surface most irregularly, at other times they are found in one continuous line half-a-mile or more in length, and varying considerably in breadth and depth, being in some places 20 or 25 ft. below surface. Large quantities of picked ore, containing about 60 per cent. of antimony, have been exported, but still larger quantities of an inferior quality accumulated at the mines require smelting.

The ore is at present liquated in a reverberatory furnace with the bed of well-fused sand and fire-clay low and inclined towards the tap-hole, and the roof arched more than usual; this prevents the draught coming so directly into contact with the charge, and reduces the oxidising effect to a minimum; there is a long capacious flue, with chambers, as in arsenic flues, for condensing the oxide of antimony. The mineral in pieces the size of road metal is introduced into the furnace through the side door; 30 cwts. constitute a charge, and three charges can be worked in 24 hours. The furnace is tapped once about five hours after charging, and again before the gangue or residue is withdrawn from the furnace. Cast-iron moulds are provided for the reception of the crude antimony. After the first tapping of the furnace the side door is opened, and the top of the charge—about one-third—which has been most exposed to the heat is raked out, the door is again closed for two or two-and-a-half hours, when the liquation should be completed; the furnace is again tapped and allowed to drain for a short time, when the remainder of the residue is raked out. The heat must be carefully regulated, otherwise the quantity of antimony volatalised will be very considerable. The yield of the ore varies from 8 to 10 cwts. of crude antimony per charge, containing 72 per cent. of metallic antimony. The oxide of antimony is removed from the flues once every six months; it is of a dirty-white colour, owing to the presence of sulphate of antimony and other impurities; the average produce is about 70 per cent. of metallic antimony. The quantity of oxide obtained is about 30 tons per annum for each furnace at work. The residue raked from the furnace contains from 2 to 3 per cent. of antimony. The fuel used is wood, the quantity consumed depends much on the kind of wood used, the harder it is the less is required.

The cinnabar mine is situate at Tegora, about ten miles from Jambusan. A very fair road 6 ft. wide is now made, and bridges are built across the streams. A mountain stream or river is available for the conveyance of material from Sarawak to within 1¼ mile of the mine, but considerable difficulty is sometimes experienced in ascending it. The time usually occupied in ascending the river is three or four days, and the cargo taken by each boat is about 10 cwts. The mountain in which the cinnabar is found is 750 ft. high, and is composed of basalt. The ore is distributed as nuggets in all parts of the rock; no lode or vein has yet been discovered. The mountain has two peaks, only one of which is worked at present. The basaltic rocks composing those peaks contain considerable quantities of sulphide of iron, and is quite exposed for a distance of 150 ft. from the top; below this it is covered with layers or beds of shale.

The clay to be washed is loosened with iron bars, and either falls, or is thrown into the water, which rushes wildly down the steep side of the mountain in a channel provided for the purpose. Catch pits are made at a convenient place for the collection of the cinnabar, or any heavy substances which have been washed from the clay and carried down by the stream. When a sufficient quantity has collected the water is turned into another channel, and the contents removed and subjected to a further process of picking and washing. Considerable quantities of cinnibar in a fine state of division are, no doubt, held in suspension in the water, and ultimately lost; this however, is unavoidable, as, if provision is made for its subsidence, large quantities of sulphide of iron, sand, and other impurities are also collected, and the produce for quicksilver is so low that it will not pay for extracting. More than 300 tons of ore, containing 75 per cent. of quicksilver, have been obtained from the soil in this manner, also a considerable quantity of an inferior quality.

The area of the soil to be washed is of course limited, and the rock has to be looked to as the source from which permanent supplies of ore are to be obtained. Blasting operations on a large scale are carried on at the base of the peak of the mountain, and large quantities of the rock are daily removed. The ore is so intimately associated with the rock that the whole of it has to be broken and carefully examined; the selected pieces give an average produce of about 6 per cent. of quicksilver. Efforts have been made to discover a vein of the ore, but hitherto without success. A level or tunnel has been driven into the side of the mountain, about 350 ft. from the top, and on reaching the rock smaller levels were driven in several directions, but no vein was met with. The rock in the drifts presents the same characteristics as that at the top of the mountain. A self-acting incline, with an inclination of 1 in 5, has been constructed for the purpose of conveying the ore from the base of the peak to the foot of the mountain, where the stores are situated. The only preparation necessary for the rich ore washed from the soil is to grind it, and mix it with lime; it is then ready for the retorts. The poor ore, however, containing about 6 per cent. of mercury, has to be subjected to a much more expensive treatment, the object of which is to concentrate the cinnabar, and get rid of as much of the matrix or gangue as possible. The mineral is stamped and buddled.

The retorts in which the cinnabar is reduced are 9 ft. long and 18 in. internal diameter; a 3-in. pipe, 12 in. long, is cast on the closed end of each retort, and provision is made for bolting on another pipe, which dips into a cast-iron cistern filled with water, the mercurial vapour escapes from the retort by this pipe, and is conveyed into the water, where it is condensed. A separate cistern is provided for each retort, and provision is made for a constant supply of cold water. The ore is mixed with quicklime, the quantity varying according to the produce of the ore, and introduced into the retort with a large wrought-iron scoop, about 10 cwts. of the mixture is a sufficient charge; the residue is raked from the retorts into a wrought-iron wagon, and another charge immediately introduced. The workmen engaged at the retorts sometimes suffer from the effects of the mercury; the only time there is any danger of their being salivated is when the retorts are being charged and

* The paper, of which the present is an abstract, was read before the Tyne Chemical Society on Nov. 27, 1874.

drawn, during which operations they should be careful not to go nearer the mouth of the retorts than necessary.

The loss of quicksilver in the reduction, from volatalisation and other causes, amounts to 4 per cent. A considerable loss of cinnabar is incurred in the stamping and dressing of the ores; this arises from the fine state of division to which some of the cinnabar, owing to its soft brittle nature, is reduced. In this state the specific gravity of the fine particles so nearly approaches that of the matter with which they are associated that it is next to impossible to separate them by washing. Mr. Down saw in the *Mining Journal* of Nov. 1, 1873, the description of a retort patented by Mr. Herbert Bankart, superintendent of the Napa Quicksilver Mining Company, and thinks it has several advantages over that which he has described. It was decided some time ago to build a furnace and condensing flues, similar to those in use at the New Almaden Mines, in California, and compare the results with those obtained in the manner Mr. Down described; he believes this has since been done, but he has not heard what the results were.

Original Correspondence.

CAPE COPPER MINING COMPANY.

SIR,—In addition to 560 tons of copper ore for sale for this company on the 26th inst., I see that a further 700 tons have been put forward for sale on the 9th proximo, which will add some 18,000*l.* or 19,000*l.* to the enormous sales referred to in my last two letters, made since last annual meeting, and as it might appear those sales would reduce the stocks very materially, and as, perhaps, your correspondent, "A Shareholder," would wish for "guiding knowledge" on this head, we shall examine the company's monthly reports for the necessary information. I have shown in my letter of the 8th inst. that, although bills of lading had been received for 6340 tons shipped from the colony in six months, only 2500 have been received (to which must now be added 1490 tons received since, as stated in the directors' last monthly report).

The following is a statement of the yield of ore from the mines, and the transport by railway to the shipping port for the six months ending in November last, and which includes the quantities in last monthly report:—

		Transported by railway.	Yield.
1874—May	2 weeks	Tons 385	Tons 822
June	6 ,,	1067	822
July	4 ,,	628	822
August	6 ,,	960	827
September	2 ,,	400	917
October	6 ,,	1078	898
November	4 ,,	700	888
Total		5215	5996
Deduct sent down by railway to shipping port			5215
Leaving accumulated at mines in the six months			Tons 781

It will, therefore, be seen that, notwithstanding the greatly increased facilities of transport by railway, the company is still unable to deal with the increased production of the Ookiep Mine, and that the stocks of ore in the colony are again increasing; but I hope when the railway is completed to the mines, and which doubtless will be an accomplished fact in the course of the present year, the stocks of ore will rapidly disappear, and be turned into cash, and prevent the objectionable debit for interest being continued.

The third and last instalment of the debentures issued for the construction of the railway having been paid off on July 1 last, the great expense of sinking the main shaft being now at an end, and the constant and large sales of copper ore turning in so much cash into the treasury of the company, must necessarily cause a very favourable change in its financial position; and I would, therefore, tender my advice to the *bona fide* shareholders not to part with their shares (which at present price—say 30*l.*—yield them a return of upwards of 13 per cent.) until the colonial reports have been received, and the annual report and balance-sheet published, which latter I apprehend must show, as compared with its predecessors, some very favourable changes indeed.—*London, Jan.* 22. AN INVESTOR.

CAPE COPPER MINING COMPANY.

SIR,—The sales of ore made since the meeting, on July 6, amount to 5999 tons, realising 161,123*l.*, and not to 6330 tons, as stated by "Investor," in the Journal of Jan. 9. I fear his estimate of the value of the ore coming forward is also erroneous. He estimates it at 27*l.* per ton, but the sales made between April 30 and Oct. 16, amounting to 4368 tons of ore and regulus, barely averaged 25*l.* per ton. These sales rather exceed the quantity of ore raised in 1873, which was unsold on April 30 last. The previous portions sold averaged 28*l.* 12s. 6d. per ton, according to the statement of accounts laid before the meeting. The sales since Oct. 6 last amount to 2900 tons, realising 75,000*l.*, or barely 26*l.* per ton, notwithstanding the price of copper in the ore has advanced, and sales have been made at 2s. 6d. per unit more than in August last, equal to an advance of 3*l.* 15s. per ton ton on 30 per cent. ore. The inference is, therefore, legitimate that, instead of the sales having proved the ore maintains its produce, there would have been a reduction in the average price obtained for it had there not been such a considerable advance in the standard, and consequently that there has been a decline in the average produce of the ore. If the copper market continues to decline as it has done of late, the fall having been since November last quite 1s. per unit, or 30s. per ton on ore of 30 per cent. produce, there cannot be an increase in the future dividends, or an advance of 5*l.* to 10*l.* per share, as anticipated by your correspondent. On the contrary, the maintenance of present dividends and market price for the shares would be more than doubtful. All the ore of 1873 having been sold, the financial results of that year are easily ascertained:—

The balance at debit of revenue account for 1873, at the meeting on July 6, was, including actual payments, two dividends, and further costs to accrue	£ 96,000
Add June and September dividends, since paid	40,000
Total charge	£136,000
The ores sold between April 30 and Oct. 6, 1874, were 4638 tons (30 tons more than reported unsold of 1873 ores on April 30 last), realising	115,530
So the produce of the year shows a deficiency of	£ 20,470

In other words, whilst only three dividends of 1*l.* per share have been earned, four dividends of that amount have been paid.

Can this policy of the directors be sound? On referring to the accounts the amount of floating liabilities of the company necessary for carrying on its affairs are found to be "in bills payable and sundry accounts in London and at the Cape" 154,216*l.*, in addition to the debenture debt of 7000*l.* This mass of liability in 1873 subjected the company to a charge for interest, discount, commission, and exchange of 9890*l.* I would also notice that the reserve fund and sinking and guarantee funds together, amounting to 58,397*l.*, instead of being invested as such funds ought to be, in order to be available for the emergencies for which they are created, exist only in the floating balances of the company somewhere between the mine and Swansea.

"Investor" says the tonnage of ores raised has been increased, but this is a disadvantage if the quantity of pure copper contained in the increased tonnage does not show a corresponding increase, carriage to the port and freight to England being fearfully heavy per ton on this company's ore. I fear there is little consolation to be extracted from the increased tonnage, for if any increase in the money value should be the result the continually increasing working expenditure will, probably, more than absorb it. The working expenses for 1872 were 105,144*l.*, and for 1873 they would appear to be about 123,503*l.*, showing an increase of over 18,000*l.* on the year. I shall be greatly surprised if the expenditure of 1874 does not show an equally large increase over that of 1873. "Investor" anticipates a decreased expenditure, because the shaft is completed to the 80. Alas! he does not seem to be aware that if the mine is to be continually opened out, so as to develope the ore bodies at deeper levels, without which being done the returns would altogether cease, the sinking of the shaft must be suspended only for such short periods as are required for completing other work at the bottom of the mine, which cannot be carried on concurrently with the sinking of the shaft, meanwhile the shaft has been sunk through unproductive ground, and the drivages at the 68 fm. level are rapidly fallen off in value.

The returns of 1874 may be roughly estimated at 9700 tons of ore, which will realise, if there is no further fall in the standard, about 244,000*l.* After deducting the expenditure, amounting, in all probability, to about 144,000*l.*, there will be a profit on the year of 100,000*l.*, just sufficient to pay four quarterly dividends of 1*l.* per share, and liquidate the balance of 20,000*l.* against the costs and returns account for 1873. I may just remark the balance of undivided profit at the end of 1872 was 15,547*l.* How different is the position now—two years later—notwithstanding the returns show an increase of 2000 tons, and the quarterly dividends have been reduced from 1*l.* 5s. to 1*l.* per share! There is no balance profit to carry forward. I have gone thus minutely into the position and prospects of the Cape Copper Company, because there is evidently a disposition to represent the shares as an eligible investment at the present price of 30, which represents a total value of 600,000*l.* for the mine. To recoup the capital invested at present prices, and yield 8 per cent. per annum—a rate of interest only moderate for perishable and risky investment in high-priced mines—the present dividend on Cape Copper should be uninterruptedly maintained for at least the next 12 years. With the experience before me of the disastrous results of similar investments in Cobre Copper, Burra Burra, Devon Great Consols, Weal Buller, and Wheal Basset shares, when, like Cape Copper shares, the prices were high, and large dividends were being paid, I think he would be a bold man who would assert the Cape Coper dividends will be maintained at their present rate for even six years.—*Jan.* 21. A LOOKER-ON.

[For remainder of Original Correspondence see this day's Supplement.]

NAKED LIGHTS AND BLASTING WITH POWDER IN COLLIERIES.

In an article which appeared in the Journal of Jan. 2, with respect to colliery explosions, their cause and prevention, reference was made to the danger that always existed in mines where the men worked with naked lights in what we know to be fiery seams, or the using gunpowder where it was found necessary to use safety-lamps. Our concluding words were:—"We think that some more stringent rules than those in force at the present time are required with respect to lights and lamps, as well as to the use of gunpowder, in fiery mines." Since these remarks were penned our views have received additional confirmation, if such were needed, by an explosion at the Aldwark Main Colliery, near Sheffield, involving a loss of six lives; and our oft-repeated views have been thoroughly endorsed by Mr. FRANK WARDELL, the Mines Inspector for Yorkshire, whilst they have also met with marked approval by several writers. Amongst others we have been favoured with the views of Mr. PHILIP CASEY, secretary of the South Yorkshire and North Derbyshire Miners' Association, a body numbering upwards of 25,000 men, all of whom are deeply interested in all that relates to the safe working of mines. That gentleman puts the matter forward, so far as regards naked lights and lamps, as a question of pounds, shillings, and pence. The safety-lamp gives but a very poor light indeed, and by it less coal can be cut and cleared away in a given time than with an open light, giving at least two or three times the illuminating power. Now, according to Mr. CASEY, the men do not object to working with lamps, but in doing so they require to be paid extra.

At Warren Vale we are told that the pit had been worked for 30 years with candles, but on some occasions when danger was apprehended safety-lamps were used, and for which the men received an addition of 3d. per ton. When, however, the danger was supposed to have passed over then the candles again superseded the lamps, and the 3d. per ton given to the men was taken off. This certainly looks to us very much like playing with fire in the midst of gunpowder, and with the sure and certain result of an explosion taking place, killing at least all that might be in that part of the workings at the time. Although 2d. and 3d. per ton is a serious item, we do not think that it ought to be allowed to lead men into constant danger, but that an understanding should be come to by masters and men so that comparative safety should be ensured to all persons engaged in working seams of coal that are known to be fiery. Mr. CASEY says the working collier only uses the naked light because by it he can earn more wages, whilst he knows the full value of the safety-lamp. His words are:—

"But the miner of the present day is more intelligent than to object to the introduction of safety-lamps, and WARINGTON W. SMYTH himself acknowledges 'that the chief objection to the Davy lamp consists in its small amount of light.' If this is compensated for, the whole difficulty is removed, and that it may be removed, and lamps introduced in all parts of the district, I sincerely hope; for the two recent explosions at Warren Vale and Aldwark Main clearly show that even in the two collieries where we had most confidence, and felt the greatest security, 30 valuable lives have been lost, 15 widows are left for the country to provide for, and 40 fatherless children."

Mr. CASEY fully agrees with us as to the absurdity of allowing gunpowder to be used in mines where it is found necessary as a precautionary measure to use safety-lamps. Mr. WARDELL, the Government Inspector, is of the same opinion, and has done all he could to prevent such an anomally in the mines under his charge. He knows, as do all practical men, miners or engineers, that there must be very great danger in blasting in a pit where gas accumulates to such an extent as to render the use of safety-lamps an urgent necessity. The experience of the last 20 years shows that the greatest of our explosions in which the loss of life was the most serious ever known in our mining annals took place at the collieries where the two were in operation. As one having had considerable experience, Mr. CASEY's views are worthy of the most serious consideration, and we, therefore, give in his own words some matters which have come under his notice. He says—

"In a board-heading not 60 yards from where I was working two men were working also, and in filling a charge of gunpowder they left the cork out of the powder flask (at least it was supposed so), when the shot exploded a spark from it unaccountably found its way to the flask and exploded it as well; the result was that those men working at the intake side were knocked about like skittles, riddles were tumbled out of the hands of some who were in the act of using them, corves were knocked off the road, doors were burst open, but very fortunately no lives were lost, but it is seldom such a stampede takes place as did on that occasion. When the air regulated itself the smoke from the explosion was driven direct into the place where I was working, and it was with the greatest difficulty I escaped from it. Such cases had occurred on many occasions in different places, and were the cause of the stringent regulation in the new Act in respect to powder being taken down the mine in cartridges and likewise in canisters. The other case to which I refer occurred in an end slit that had been driven through, and a shot was put into the side to get off the widening. The widening was properly holed, the shot fairly set by a man who had set many a hundred previously, but as it so happened in drilling the shot he had passed through what is called in this part of the country "a letter off," which is a parting in the strata similar to what may be seen any day in an ordinary sandstone quarry. In this parting gas had accumulated, and when the shot went off it blew itself out, set fire to the gas, and an explosion was the result. Very little damage was done on this occasion in consequence of the ventilation being remarkably good, but the two cases are given as instances of the danger incurred by this foolish practice. In addition to the two cases given, the Edmunds Main explosion in 1862 was directly traced to this source, although the greatest care was taken to guard against it. A person was appointed to do nothing else but see that the particular place where it occurred was free from gas. No one else but himself was allowed to light a shot after he had examined the place and seen there was no gas in it. The shot was fired, the coals had partly fallen, and there was gas behind the coals that ignited with the shot, the men could not get to the fire for the way the fallen coals had wedged themselves, and the loss of 59 lives was the result. Those instances, coupled with the Ardsley Oaks explosion, which many people (myself included) believe to have been caused by the shot which was fired in the new drift, because some of those who reason differently admit that the two explosions were both at one time, or so close together that no difference could be perceived, while others say the drift shot disturbed the ventilation, and caused gas to come from the old workings and ignite at some of the naked lights contiguous to the pit bottom, if so the shot was still the cause, while it is well known that Wilson, the deputy, came running from the workings to stop the shot from being fired, but was just about half a minute too late, and he declared many times before his death the shot had been the cause. While we have the above cases we have also the evidence of Mr. WARDELL, the Government Inspector, at nearly every inquest and in every report continually condemning the use of powder, and it is strange that the suggestions of one in his position and of his varied experience should not be attended to as they ought to be. I am not one of those who believe that when science has done all it can, and every care is exercised, that accidents will not occur; it is not possible for them to be prevented at all times, but in the case of explosions there has been quite sufficient experience gained, and that too of a terrible nature to prevent them in the future."

Most persons with any knowledge of coal mining will fully agree with the conclusion come to by Mr. CASEY with respect to blasting with gunpowder in certain collieries. That powder is always a certain element of danger in mines where the coal gives off gas, even where safety-lamps are used, has, unfortunately, been too frequently demonstrated. Naked lights, too, in fiery seams where powder is not used, it will be apparent, is also a source of danger that cannot be guarded against by the most vigilant care and watching. We, therefore, fully agree with the concluding remarks in the communication of Mr. CASEY, and which cannot be too strongly urged upon all persons in any way connected with the working of collieries:—

"I would, therefore, advise every coalowner, every manager, and every miner working in either the Barnsley or Silkstone seam of coal in the entire district to insist upon naked lights being excluded, and upon safety-lamps being introduced, to discontinue the use of blasting with powder altogether, the extra cost of production would be cheerfully borne by all who have a desire to see accidents by explosion altogether done away with; and our Miners' Association should also take action with a view of stopping those two practices, which entail such a great cost to them, and throw such fearful responsibilities upon the Association in having so many widows and children to provide for in the future."

GREAT WEST VAN MINE—SPECIAL REPORT.

Jan. 16.—The old engine-shaft is sunk 46 fms. on Greene's lode, and a level driven east 4 fms.; the lode in this end is 3 ft. wide, yielding blende and lead, with a promising appearance. The 46 fm. leval is driven west 9 ft.; the lode is of the same character as it is in the east end, and in going west has hove round south, which I shall refer to below. The south lode is intersected by a cross-cut driven 7 fms. north; at the point of intersection good lumps of lead ore were met with, but did not continue in another direction. The 46 is driven east, on the south lode, 15 fms., in which drivage the lode produced occasional stones of lead; in the present end the lode is 4 ft. wide, with a regular wall, and letting out more water; without doubt we shall be on a deposit of lead here soon. The 46 is driven west 28 fms.; the lode in the end is small and poor. The lode here has made a bend south, but from the appearance of the rock a change is near at hand for the better; this drivage has been comparatively poor the whole distance. At a point 20 fms. from shaft a rise is put up 8 ft., the lode in which is orey; worth 3 cwts. per fathom. About 6 fms. west of shaft a stope is worth 30 cwts. of lead per fathom. In the 34, at a point 22 fms. west of shaft, a winze is down 8 ft. in the rock. North of lode a few feet sinking will bring us on the lode; this winze is going down to ventilate the 46, as well as proving the lode. Four stopes are working in the back of the 34, west level; worth in the aggregate 2 tons of lead per fathom. The 34 west end is distant from shaft 95 fms.; the lode in the end is large, composed of carbonate of lime, spots of lead, and blende. The stope in the back of the 22 east is worth 18 cwts. of lead per fathom.—Eliza's Shaft: The 34 north cross-cut is driven 11 fms., at which point a lode has been intersected 2 ft. wide, composed of lime, blende, and lead ore of a very promising character; it carries a good wall, with an underlay south 2 ft. in 1 fm. I have carefully taken the underlay of said lode, and I find that we have another 4 or 5 fms. to reach the north lode; and, further, the rock to the north of said lode is showing strong indications of another lode being at hand; it is highly mineralised, open, and porous, the fissures in which are well filled with lead ore. The indications are very strong that we have another lode before us, and are such that we may reasonably expect the lode to be found highly productive; if this proves to be the case it will greatly enhance the value of this property. The south lode, so far as proved, is bunchy, and the ore about the old engine-shaft looks to me the offshoot of the main deposit that will hereafter be discovered by deeper working—in fact, the stope 7 fms. west of old engine-shaft shows evidence of a rich lode below. The lode here is composed of cinder-like gossan, white needle, and carbonate of lead ore; this undoubtedly is the outcrop of a great deposit in the upper levels. Greene's lode forms a junction with the south lode near the old engine-shaft, where it made a deposit of ore; but in the 46 Greene's lode heaved more south near the shaft, but undoubtedly it will change its course, and unite with the south lode again under the gossan mentioned above, when a good course of ore will be the result. I consider that this mine is now in its infancy, and that further exploration will open a good and lasting property.—T. HODGE.

FOREIGN MINES.

ST. JOHN DEL REY MINING COMPANY (Limited).—Advices received Jan. 4, 1875, per Murho (s.), dated Morro Velho, Nov. 30:—

GOLD EXTRACTED TO DATE.—The produce for the second division of November, being a period of 12 days, amounts to 13,999·7 oits. It has been derived as follows:—

	Oits.	Tons.	Oits per ton.
From mineral stamped	13,157·3	from 1484	= 8·864
Re-treatment	842·4	,,	= ·567
Total	13,999·7	,, 1484	= 9·431

Oits. Ozs. troy. Tons. Oits. Ozs. troy per ton.
Or 13,999·7 — 1613·9375 from 1484 = 9·431 or 1·0875

The above produce, being the result of the working of 96 stamp-heads for the 12 days, may be considered a good return of gold. It gives a daily average gold produce of 1166 oitavas, which is the highest produce we have extracted since the re-opening of the mine.

The stamps working have given an average of 23·69 hours daily during the second division, and the 96 heads have reduced at the rate of 123·6 tons of mineral per diem.

Dec. 1.—MEASUREMENT OF DRIVING AND SINKING.—I beg leave now to furnish you with the measurements, showing the results of the sinking and driving during the month of November:—

	Fms.	ft.	in.			
Driving eastward under roof	1	5	0			
,, westward ,,	1	3	5			
Vertical sinking of sump	1	2	1			
Length of excavation from centre of shaft west	11	2	0			
,, ,, ,, east	16	3	4			
Total length of excavation				27	5	4
Width of lode in sump	4	1	0			
,, ,, eastern driving	0	5	9			

The height of the stopes will be found as follows:—

First from sump	1	2	0
Second ,,	2	2	8
Third ,,	3	1	5

From these last measurements it may be seen that we are now making some extent of stoping ground. A considerable proportion of our boring is still made in driving and sinking holes, and in which the duty in blasting is much smaller than in stoping holes.

TURBINE AND STONE-BREAKER.—I am glad to be able to advise that these desirable machines have been well erected, and put to work to-day in the general spalling-floor, and arrangements made by which the mineral in future can be trammed from the stopper of the stone-breaker to all the stamps, Herring only excepted.

WATER-SUPPLY.—We have at present a good supply of water, and a nice little stock of mineral on the spalling-floors.

Advices received Jan. 18, 1875, per *Neva*, dated Morro Velho, Dec. 17, 1874:—

GENERAL OPERATIONS.—Since the date of last advices our general operations have been carried on without interruption, our water supply enabling us to do pretty full duty, both in the hauling and reduction of mineral, as may be seen from the following brief summary:—

PRODUCE FOR THE MONTH OF NOVEMBER.—The gold return obtained during the month of November amounts to 33,759·7 oits. It has been derived as follows:—

	Oits.	Tons.	Oits. per ton.
From mineral stamped	31,591·7	from 3524	= 8·964
Re-treatment	2,168·0		= ·615
Total	33,759·7	,, 3524	= 9·579

Oits. Ozs. Tons. Oits. Ozs. troy per ton.
Or 33,759·7 — 3891·9442 from 3524 — 9·579 — 1·1044

This is very good produce from the mineral treated, being an increase in the quantity reduced, and also in the gold extracted, compared with the month of October.

MINE.—The general work in this department has gone on regularly and satisfactorily during the month. The attendance of natives has been pretty regular, the saints' days excepted, and very good duty has been done by the borers. The safety fuze and dynamite have acted with certainty and good effect. The sinking, driving, and stoping have been advised by previous post, and the duty performed given in the same way.

Some quartz and a little killas have continued in the south side of the western driving under the roof, and the mineral in the eastern driving at the end of November measured 5 ft. 4 in. only. No other change has taken place in the quality and appearance of the lode during November.

The hauling for the past six days gives an average of 175 wagons per diem. There is a good stock of mineral on the spalling-floors.

REDUCTION DEPARTMENT.—The machinery of this department has been kept as fully employed as possible, only stopping the stamping-mills for essential repairs to them or the water-wheels. During the greater part of the month all the arrastras have been kept working, and the treatment of the same by amalgamation has been steadily and effectively accomplished.

The stone-breaker, and turbine to drive it, have been erected on the general spalling-floor, and the former is now employed in crushing mineral for the stamps since the beginning of this month (December).

Heavy rains have done a good deal of damage in this district, but so far we have not suffered the least inconvenience. Our water courses have stood well.

COST AND PROFIT FOR NOVEMBER.

The produce being	33,759·7 oits.		
Deduct loss in melting into bars	149·8 ,,		
	33,609·9 at 7s. 9d. per oit.	£13,023	16 8¾
Cost, less sums received in reduction of the same		5063	16 8¾
Profit for the month of November		£ 7960	0 0

The cost is about at the present rate of expenditure of the company for the mine, and the profit shown above for November, under our present circumstances and mode of working, should be regarded as large, creditable, and satisfactory.

GOLD EXTRACTED TO DATE.—The gold produce for the first division of December, being a period of eight days, amounts to 9084·5 oits. It has been derived as follows:—

	Oits.	Tons.	Oits. per ton.
From mineral stamped	8504·0	from 917	— 9·273
Re-treatment	580·5	,,	·633
Total	9084·5	,, 917	— 9·906

Oits. Ozs. troy. Tons. Oits. Ozs. troy per ton.
Or .....9084·5=1047·2950, from 917 — 9·906, or 1·1420

This gold return for the period is quite equal to the average extracted during the past month, both in standard yield from the ore and in daily produce.

The gold troop was dispatched from Morro Velho on Dec. 14, taking 14 boxes, containing 41 bars of gold, weighing in all 64,048·5 oits.=7383·7464 ozs. troy for shipment per Neva steamship for delivery in London.

N.B.—The gold has duly arrived.

The following telegrams have been received:—

Dec. 24.—Produce for the month of November, 35,500 oits.; yield, 9·5 oits. per ton; produce per diem, 1140 oits.; profit for November, 7900*l.*; produce nine days first division of December, 10,000 oits.; yield, 9·9 oits. per ton.

Jan. 6.—Produce 13 days, second division of December, 15,250 oits.; yield, 9·8 oits. per ton; produce per diem, 1175 oits.

Jan. 18.—Produce for the month of December, 35,500 oits.; yield, 9·6 oits. per ton; produce per diem, 1150 oits. Heavy rains have caused some landslips, but no serious damage.

DON PEDRO NORTH DEL REY.—Report for November, 1874: Produce, 555 ozs troy, at 8s. 6d. per oit., 2048*l.* 1s. 6d.; cost, 2511*l.* 7s. 4d.: loss, 463*l.* 5s. 10d.—First Division of December: Produce weighed, 1661 oits; remittance (one month), 4796 oits.—Telegram: Produce cleaned up, 3700 oits.; estimate for the month (December), 5505 oits.

RICHMOND CONSOLIDATED.—Cablegram from the mine at Eureka, Nevada:—" Hall, London.—Week's run, forty-seven thousand dollars ($47,000).

MINERAL HILL.—Mr. Oakes, the superintendent at the mines (Dec. 28), writes as under:—There is no material change in the mines since my last report. The ore raised is 40 tons, of an average grade of $45 per ton.

SIERRA BUTTES (Gold).—Result of the working at the Sierra Buttes and Plumas Eureka Mines for December:—Sierra Buttes: Receipts, $36,044; cost of mining and milling, $21,342.—Plumas Eureka: Receipts, $33,196; cost of mining and milling, $15,170.

WESTERN ANDES.—The directors have received advices from their mines in the United States of Colombia stating that the profit made for the month of November was 1982*l.* 15s. 6d.

CHICAGO (Silver).—Telegram from the manager of the mine: We have run two furnaces eight days. Net profits for the month of December, $7000. Will remit in a few days. Roads blocked. Transport of bullion delayed temporarily.

CEDAR CREEK (Gold).—The directors have received the following advices from their superintendent, Col. T. B. Ludlum, dated Dec. 24:—The weather continues cold, and our supply of water is gradually decreasing; we have enough, however, to keep the Yankee claim washing, but not sufficient for the Jehoshaphat. The Yankee claim I am working with vigour. We have been delayed by the large quantity of the rock and clay constantly sliding in upon us (being still cramped for room), so that we will not be ready to clean up before Jan. 10. We were very fortunate in being enabled to open this claim during the dry months, for it would be next to impossible to do it in the winter, owing to the large quantity of sliding clay overhanging our pit. In the Jehoshaphat claim we are working up ground sluices, running powder drifts, and preparing generally to take every advantage of the approaching season.—Water Sales: None of our water customers as yet have their claims ready for washing.

— T. B. Ludlum, Jan. 1: We are washing in the Yankee, but are still somewhat cramped for room, and cannot remove the gravel as fast as I expect to do when we have a broader face. The sliding clay and rocks contained therein have retarded our progress very much during this run; I think, however, that we now have them under full control. Our water supply is gradually decreasing; I am drawing from our lakes in order to keep up the Yankee head. No other claims are washing in this district. We have sufficient water to keep the Yankee washing till about the middle of February, even if we should have no more rain in the meantime. The weather is clear and cold, without any signs of rain. The powder drifts in the Jehoshaphat are finished, but I will not fire the blasts until we have water to wash with therein.

CAPE COPPER.—Bill of lading is received for 171 tons of ore per Anglian: 700 tons of ore have been sampled, for sale by public ticketing on Feb. 9.

RIO TINTO.—Railway: The company's consulting engineer, Mr. George B. Bruce—has just returned from inspecting the works, and presented his report yesterday (21st) to the board. The formation of the line has been completed over the entire distance, with one or two most trifling exceptions. The whole of the masonry of the bridges has been completed, and the permanent way laid eight miles from Huelva. It is being rapidly proceeded with, and the contractors are about to commence laying it from the other end also. The ballast is abundant, of excellent quality. The girders for the bridges are being sent up by the line as the permanent way is laid. Mr. Bruce considers that "the works of the line throughout have been constructed very thoroughly and substantially." He adds—"I see nothing to prevent the completion of the line by July 1." The contract time is Nov. 1.—Pier: For the first half of the entire length the seven piles have been put in, and the upper part of the structure is being proceeded with. It seems not improbable that the completion of the pier may be retarded to a date some week's later than that of the railway, but temporary arrangements for shipping the ore will be made, the utmost facility being afforded by the use of barges in the creeks which line the station grounn.—Mines: At latest date rain had at last been falling copiously. This has been greatly needed, and while it will facilitate all operations at the mine, it will at once increase the copper produce.

BATTLE MOUNTAIN.—Capt. Richards, Dec. 31: Fair progress has been made in driving north of the new shaft at the 260 ft. level; distance driven, 117 ft.; the ledge contains strong stains and sometimes fine stones of ore of rare quality. Stevens's winze, in the bottom of the 188, having been sunk so deep as will cause a communication with the 260 ft. drift, north of the new shaft, when it shall have reached there will be suspended. The amount of ventilation which will be secured thereby will ensure the greatest amount of labour from the men of which they are capable, and which is of the utmost importance. In the stopes in the back of the 260 ft. level, south of Cook's winze, the lode produces some very rich and rare quality ores in red oxide, sulphurets, black, green, and blue carbonates—a very fine-looking lode. The new winze in the bottom of the 260 ft. level, 16 ft. south of Cook's winze, is down 8 ft., and the lode produces some rich red oxide, green and blue carbonate—a fine-looking lode, and from its being the deepest point in the mines its importance will be at once seen. This winze will in future be known as Smith's winze; 198 sacks raised.

COLORADO TERRIBLE LODE.—Jan. 18: The agent's advices to hand this morning are dated Dec. 24. He says:—Weather fine, mine looking well, and everything in good working order. The mine foreman says:—"By a careful examination throughout the mine I fail to find anything different from what I stated in my last report." Everything is going on well, and we are taking out a great deal of good ore this month, nearly as much as we did in November I think, and we have every prospect to do so for some time to come.

WEST CANADA.—Dec. 20: Huron Copper Bay: The stope under the 50 fm. level, east of Palmer's shaft, is yielding 2½ tons of copper ore per fathom. The stope in the bottom of the 35 fm. level, west of this shaft, is worth 2½ tons per fathom. In the bottom of the 50, east of Bray's shaft, there is a stope yielding 2¼ tons per fathom, and one under the 35, east of new shaft, yielding 2 tons per fathom. West of Rowe's shaft, in the back of the 10 fm. level, we have a stope producing 2½ tons per fathom.

MENZENBERG.—Jan. 16: We are working day and night in the 45 fm. level cross-cut south, and pushing on our work with vigour. The object of our opening up the No. 1 lode west was through the inducement the lode held out to us when we cut it in the 45 cross-cut, and that we felt certain from its appearance that it would improve in driving on the same. This inducement, so far, has, in fact, been realised, as from the lode we have broken some very fine stones of copper ore, and in the bottom of the level beautiful copper ore can be seen now. This lode is at present 4 ft. wide, and we have reason to believe that it will still improve. The lode recently met with in the present end of the 45 cross-cut is 5 ft. wide (7 fms. south of No. 1 lode)—an east and west lode; and we believe it to be the same as that sunk through at the 30, which is not Dickins's lode, as Dickins's lode is north and south. However, in opening upon this east and west lode we shall intersect the Dickens and St. Josephberg lodes. As soon as the end is squared and timbered we shall put the men to drive west, so as to intersect the two latter lodes, which we expect to find rich in copper.

Jan. 20: Dickens's Engine-Shaft: In the 45 cross-cut, south of shaft, we have already driven in the lode 8 ft. and no south wall—a strong-looking lode, and letting out an increased quantity of water, which, with the lode being a little harder for driving, our progress here is not so good as we could wish. We are, pushing on the level with energy, so as to cut through the same in order to open on its course. The lode in the 45, driving west on No. 1 lode, is improved in size and appearance, it being 4 ft. wide and yielding good stones of copper ore—a promising lode.

LUSITANIAN.—Jan. 12: Palhal: The lode in Taylor's engine-shaft, sinking below the 180 fm. level, is 10 ft. wide, composed of quartz, with ore on the north part of it, worth 1 ton per fathom. In winze No. 98, sinking below the 170, west of Taylor's, on Basto's lode, the lode is producing 4 tons of ore per fathom.—Levels on Basto's Lode: In the 180, west of Taylor's, the lode is 4 ft. wide, composed of quartz and stones of ore. In the 170, above, the lode is worth 1 ton per fathom. In the 150 east the lode is 1½ ft. wide, composed of softish quartz. East of River shaft, at the 120, the lode is made up of small branches of flookan and country. In the 110 the lode is 1 ft. wide, of quartz and flookan. In the 90 the lode is of the same size, composed of quartz, mundic, and stones of copper ore and cobalt. The lode in the 70 is 3½ ft. wide, of quartz, spotted with lead, and stones of ore. In the 28 east the lode is 4 ft. wide, of hard quartz. The slide lode in the 50, west of Taylor's, is 2 ft. wide, composed of flookan and schist. The stopes continue their usual yield.—Carvalhal: The cross-cut at the 60, south of incline shaft, is going forward in a tight gneiss rock. The ground is rather dry.

PESTARENA UNITED.—Thos. Roberts, Jan. 18: District Pestarena: The casing in the incline-shaft is put in from the surface to the 33, and fair speed is being made in laying down footway and tramroad under the 46. We calculate to commence to hoist the stuff from bottom of incline with the new machine in the course of two days, when we shall be able to sink this shaft with greater speed; and after this machine is started we shall turn our attention to the use of the boring machine in the shaft. There is no change in the 55 end driving northwards. Most of our surface hands are employed at present bringing timber to the mines. Fair work is being done in fixing mill machinery. The crusher is on the road to Pestarena.—Batsiggio: The Sasso Nero adit has been resumed, and the lode is looking promising.—Val Toppa: No change to notice in either of the two ends driving. At the establishment the carpentry for round buddle, &c., is progressing; the water-wheel is about half made, and some shafting put up.

ALAMILLOS.—Jan. 13: In the 30, west of San Francisco shaft, the lode is regular, and produces good stones of ore, worth ½ ton per fathom. The lode in the 40, west of this shaft, is large, and spotted with lead. In the 50 cross-cut, north of La Magdalena's, the ground is rather easier for driving through. The 35, east of Taylor's engine-shaft, is passing through a rich lode, worth 3½ tons per fathom. The lode in the 35, west of Julian's winze, continues to look well, and yields 2½ tons per fathom. The lode in the same level, west of Taylor's, contains spots of lead. The 40, east of San Carlos, is opening good tribute ground, worth 1½ ton per fathom. The lode in the same level west has fallen off a little in value, and yields 1 ton per fathom. The lode in the 50, east of San Victor's engine-shaft, is regular, and the ground favourable; present value 1 ton per fathom. The lode in the 50, east of San Carlos shaft, has a better appearance, and produces stones of lead. In the 50, east of Judd's engine-shaft, the lode is well defined, producing ½ ton per fathom. There is no improvement to report in the 60, east of Judd's shaft. The driving of the 30, east of air-shaft, is resumed; lode small and poor. The lode in the 40, east of air shaft, carries a good wall, but is unproductive. The men at the 30, east of Swaffield's, are still driving south to intersect the lode. The sinking of San Adriano's shaft below the 75 is going on very regularly. In San Victor's shaft, sinking below the 50, the ground is hard, and the sinking rather slow. Fair progress is being made in Judd's engine-shaft below the 60. In Morris's shaft, below the 40, there is a small branch of lead, worth ½ ton per fm. Ricardo's winze has communicated with the 50, where the lode yields 1½ ton per fathom. In Daniel's winze, below the 50, the ground is hard, and the lode valueless. The lode in Jorge's winze, below the 40, has improved, and produces 3 tons per fathom. In Moreno's winze, below the 30, the lode is regular and compact, yielding ¼ ton per fathom. Antonio's winze, below the 20, yields stones of lead.

LINARES.—Jan. 14: Pozo Ancho Mine: The 100 fm. level, driving west of Warne's engine shaft, is in a large strong lode, yielding 2 tons of lead ore per fathom. The lode in the 85, west of Crosby's shaft, is small and poor. The lode in the same level, on south lode, is getting very small. There is no improvement in the 75, west of Crosby's. In the 75, east of San Francisco's shaft, the lode is small, containing a little lead, but not enough to value. The 65, east of this shaft, is in hard ground, and the lode quite unproductive. The 65, west of this shaft, is opening up good stoping ground, worth 1 ton per fathom. The lode in the 55, west of same shaft, yields ½ ton per fathom. The same level, east, is in a small and unproductive lode. No. 194 winze, sinking below the 85 fm. level, is going down in a good shoot of ore, worth 2 tons per fathom. No. 195 winze, below the 55, has a small lode consisting of quartz and stones of ore, worth ½ ton per fathom. The lode in No. 197 winze, below the 65, is compact and regular, producing 1 ton per fathom.—Los Quinientos Mine: The 80, west of Taylor's engine shaft, shows indications of improvement in the lode. The same level east is in a large lode, producing good stones of lead ore. The 65, east of same shaft, is in a large open lode, spotted with lead. The ground in the 55, east of Addie's, continues hard, and the lode of no valne. The 55, west of San Carlos shaft, is in a large, strong lode, consisting of calcareous spar, with spots of lead ore. The lode in the 55, west of this shaft, has improved, and is now producing 1¼ ton per fathom. In the same level, east, the lode is large, producing fine lumps of lead ore, worth ½ ton per fathom. The lode in the 55, east of Judd's shaft, has improved, and now yields 1 ton per fathom. In the 45, east of this shaft, the lode is small, and produces a little lead ore. San Carlos shaft, below the 65, continues very hard and spare for sinking. Cox's shaft, below the 55, is being pushed on as fast as possible. We expect to hole Pablo's winze to the 65 by the end of the month. In Gil's winze, below the 32, the ground is hard and the lode small, yielding ¼ ton per fathom. The lode in Pascual's winze, below the 45, is declining in size and value, yielding present 1 ton per fathom. In Checa's winze, below the 65, the lode is large and the ground favourable for sinking, value ½ ton per fathom. The lode in Linares winze, below the 45, is small, but very compact, producing 2 tons per fathom. The lode in Lozano's winze, below the 45, is of no value.

FORTUNA.—Jan. 13: Canada Incosa: The 110, driving west of Judd's shaft, is in a large strong lode, with stones of ore, but not sufficient to value. The further extension of Henty's cross-cut south, at the 80, having failed to find any lode, the men are brought back to drive east on the part first met with. The 30, west of San Carlos shaft, on the south or San Pedro lode, has a small vein, with stones of ore. The same level east is opening a strong and valuable lode, worth 1 ton ore per fathom. At Abercrombie's shaft, also on the south lode, and west of San Pedro, the lode in the 25 west was worth 2 tons per fathom a few days since, but now yields 1 ton per fathom. In the eastern level the lode is improving, and looks very encouraging, producing 1 ton per fathom. The lode in the 60, west of San Pedro, is very much disarranged, and consequently worthless. The cross-cut north, at the 60, having holed to San Federico shaft, the driving east is resumed in a strong lode, worth ¾ ton per fathom. The 50, east of San Federico, is in a large lode, producing 1 ton per fathom. The 40, east of the same shaft, produces stones of ore, but not enough to value. The 80, west of Kennedy's shaft, is in a strong and regular lode, occasionally yielding fine lumps of ore. The lode in the 90, west of Lowndes' shaft, is diminishing in size and value, now worth ¾ ton per fathom. The same level east also produces ¾ ton per fathom. In the 80, east of Caro's, the lode has much improved, and is now very rich in the upper part of the end, yielding 1¼ ton per fathom.

Los Salidos Mine: The 110, west of Buenos Amigos engine-shaft, is in in a small lode, worth ½ ton of lead ore per fathom. The 90, west of San Carlos shaft, has a small and regular vein of ore, but it is of no actual value. The 120, east of Morris's engine-shaft, is in a wide, powerful, and promising lode, yielding 1¼ ton per fathom. The lode in the 110, east of Cox's shaft, has fallen very much in the past fortnight, but it will improve again shortly, there being a good lode in the winze ahead of it—present value, ½ ton per fathom. The 100, east of San Miguel, is in a wide lode, divided into branches, each carrying a little ore; the lode is worth 1 ton per fathom. The lode in the 25, west of Swaffield's, is producing good stones of ore, worth ½ ton per fathom. In the 35, west of same shaft, the lode is unproductive. The lode in the 45, west of Palgrave's engine-shaft, has fallen off in value. The 55, west of this shaft, is in a compact, regular lode, producing 3 tons per fathom. The same level east is opening splendid ore ground, worth 2 tons per fathom, and promises further improvement. The lode in the 45, east of Palgrave's, is quite poor; this is as far east as the ore ground reached in any of the upper levels. Buenos Amigos engine-shaft is completed to the 120, and the men put to cross-cut south to the lode. The men are making moderate progress at Swaffield's shaft, below the 35. In Merino winze, below the 110, the ground is hard for sinking, and the lode small. There is no improvement in Ricardo's winze below the 35. The tribute department yielded the usual average quantity of ore in the past month, and the stopes have not undergone any change worthy of notice. The general surface works are going on very regularly, and the machinery throughout the mine is in good working order. We estimate the raisings for January (five weeks) at 450 tons.

LANESTOSA.—Jan. 14: The 80 metre level, driving north of Judd's shaft, has been advanced a little, and now shows soft dolomitic rock, enclosing a vein of calamine worth ½ ton per fathom. The same level south has been passing through cavernous ground, with loose rocks of ore in earthy and clayey matter. The lode in the 60 south is very large, having a kindly appearance, but not producing ore enough to value. The ventilating winze is nearly down to the 80 metre level; lode opened to 6 ft. wide without touching either wall, chiefly hard calcite, with spots of ore. No. 1 stope in back of the 60 is holed to the north intermediate level; lode small, but good, producing 1½ ton lead and ½ ton calamine per fathom. The intermediate level, north from No. 2 adit winze, having communicated with the last-mentioned stope, is stopped. The stope in back of the intermediate level south is without change, yielding ¾ ton lead and 1½ ton calamine per fathom. The men are engaged in clearing stuff and putting in stull. In Santo Tomas's winze below the adit south there has not been much done since last reported, the men having been employed in enlarging floors for more jigging machines, &c. The weather continues fine, and we, therefore, hope to sample the estimated quantity of ore. Cleaned to date 10 tons lead, and 15 tons other ores.

MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

Doubtless it will be gratifying to those interested to find among the reports from other mine agents in our publication this week one from the manager of the GREAT CARADON MINE, in which he announces the important fact that the lode in the 70 fm. level west has been cut through, and proves a very promising one indeed. He recommends vigorously exploring it. As this lode is reported fully 5 ft. wide, and having the Glasgow Caradon Mine on the one side, "under the same manager," with the South Caradon on the other, both dividend-paying concerns, it certainly will be good policy to adopt Capt. William Taylor's recommendation.

WEST ESGAIR LLE.—The late snow and frost having entirely disappeared, and the mines being cleared from water, operations are again in active work. At the Western mine the men have commenced driving the 37 cross-cut south, to intersect the south lode. The appearances at this point are such as to leave no doubt whatever of a rich course of lead ore being speedily met with. They have yet four or five fathoms to drive before it will be intersected, but the stratum of the country is exactly what the most sanguine could have wished for.—Eastern Mine: The men have been taken from the 24 east, and put to cut a plat, preparatory to sinking a shaft for a deeper level; when that is completed the driving of the end east will be resumed. The 34 east is daily improving, and there is evidence of the expected course of ore being almost immediately met with. There is good lead now in this end, and every foot driven shows it coming in in increasing quantities. The tribute pitches are looking well, and a good parcel of tributers' ore is now being got ready for market. All the machinery in both mines is in good working order, and matters are progressing in a satisfactory manner.

LUDCOTT, WREY, AND NORTH TRELAWNEY.—A limited company is in course of formation for thoroughly developing the above property. These mines, in the last working, gave considerable dividends, and were the life and vitality of the district, and especially of Liskeard, on the pay-days.

GREAT CRINNIS AND CARLYON CONSOLIDATED MINES.—The house to receive the 100-horse power engine is nearly complete, wood work of roof being put on; it is expected about March to set the engine to work. There are five large copper lodes in this sett unwrought below adit. The company consist of noblemen and gentlemen, and all the capital has been subscribed. There appears to be but one opinion of this property by all mining authorities and working miners, and that is that it will be a very rich mine. Several tons of rich yellow copper ore is to be seen at surface, raised from the little Crinnis lode. All the shares were privately allotted. Soon after the engine is set to work three shafts, now preparing to receive pumping arrangements, will be set to work. This company possesses large tracts of main land also foreshore from the Duke of Cornwall, and under deep sea from the Crown. Extensive operations will be carried out under the sea.

SOUTH WARD.—At the meeting on Tuesday (Mr. W. A. Thomas in the chair) the accounts for the three months ending November showed a debit balance of 314*l.* 7s. 5d., and a balance of liabilities over assets of 724*l.* 7s. 6d. A call of 5s. per share was made. Capt. R. Goldsworthy reported that it is satisfactory to find the lode in the 60 south continuing through the slide, which proves to be much larger than on the western lode, and he is strongly of opinion as this end is extended the lode will resume its former productiveness. From this end and a stope, by two men, in the 72 north there has been raised and sold 23 tons of ore, thus proving the lode in the 60 south has turned out over 10 cwts. of ore per fm. As soon as a communication can be effected with the 72 on this lode the backs and bottoms of this level will be available for stoping. He would recommend, as soon as the shaft reaches the 90, to immediately start a cross-cut for the North Hooe lode, believing that at this increased depth they have every chance of finding it productive.

CARGYNON LEAD MINING COMPANY.—A meeting of shareholders was held on Monday, Mr. F. G. Lane in the chair. It was stated that the conditional assent of the shareholders to the raising of additional capital not having been responded to sufficiently to justify the expectation that the proprietors would subscribe an additional amount to carry on the works to a successful issue, and the funds now at the disposal of the directors being limited, they feel it their duty to advise the shareholders to pass a resolution to voluntarily wind-up the company. The business of the ordinary meeting having been disposed of a special resolution was passed that the company be wound-up voluntarily.

SOUTH WARD.—At the quarterly general meeting, on Tuesday (Mr. W. A. Thomas in the chair), the accounts to Nov. 28 showed a debit balance of 314*l.* 7s. 5d., and a liability over assets of 724*l.* 7s. 6d., to meet which a call of 5s. per share was made. Capt. Goldsworthy's report was read, as well as a report from Capt. John Gifford, of the Prince of Wales Mine. The accounts having been passed and allowed, the Chairman said that there were two very important points in the mine which deserved the careful attention of the shareholders—the driving of the 72 cross-cut to intersect the North Hooe lode, and the sinking of the shaft so as to communicate with that lode, which is underlying in a westerly direction. The 60 south, on this lode, is a very important feature in the mine, and opinions tend to the belief that as soon as we are quite clear of the influence of the cross-course important discoveries will be made. The shareholders present were much pleased with the prospects of the concern, and as the development of the mine progresses they look forward to the opening up of a valuable property. A vote of thanks to the Chairman terminated the proceedings.

COPPER ORES.

Sampled Jan. 6, and sold at the Royal Hotel, Truro, Jan. 21.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Great Consols	104	£8 19 6	Marke Valley	70	£4 11 0
ditto	97	4 2 0	ditto	61	3 0 6
ditto	91	4 8 6	ditto	56	3 13 0
ditto	90	4 8 6	ditto	46	4 19 0
ditto	89	1 4 0	ditto	40	5 14 6
ditto	88	3 4 6	ditto	20	3 8 6
ditto	85	1 11 6	Brookwood	66	2 14 6
ditto	80	3 11 0	ditto	55	3 18 6
ditto	76	4 1 6	ditto	51	3 16 0
ditto	70	1 1 0	ditto	41	7 2 0
ditto	69	4 8 6	ditto	40	7 2 6
ditto	53	2 3 6	ditto	30	12 19 6
ditto	43	7 9 6	Hingston Down	99	2 17 0
South Caradon	105	6 5 6	ditto	90	2 19 0
ditto	87	7 3 6	ditto	71	3 6 6
ditto	85	4 9 0	Glasgow Caradon	73	6 6 6
ditto	73	4 10 6	ditto	64	4 15 6
ditto	72	6 7 6	ditto	52	5 11 6
ditto	70	7 16 6	ditto	51	6 0 0
ditto	66	5 15 6	Gunnislake (Clitters)	74	3 15 0
ditto	63	6 9 6	ditto	71	6 13 6
ditto	60	13 5 6	ditto	61	5 19 6
ditto	46	6 6 6	East Caradon	58	6 12 6
ditto	39	2 13 6	ditto	54	6 1 0
ditto	28	6 8 6	ditto	33	5 2 6
ditto	26	10 15 6	Wheal Russell	66	4 8 6
Marke Valley	86	2 9 0	ditto	40	2 18 6

TOTAL PRODUCE.

Devon Great Con.	1035	£3910 14 6	Glasgow Caradon.	240	£1363 4 6
South Caradon	820	5439 6 6	Gunnislake (Clit.)	206	1485 13 0
Marke Valley	373	1352 12 6	East Caradon	145	880 1 6
Brookwood	283	1554 17 6	Wheal Russell	106	409 1 0
Hingston Down	260	712 14 6			

Average standard ..... £111 14 0 | Average produce 6⅞
Average price per ton £4 18 6
Quantity of ore ..... 3468 | Quantity of fine copper 238 tons 10 cwts.
Amount of money £17,108 10 6

LAST SALE.—Average standard ..... £108 19 0 | Average produce 7⅛
Standard of corresponding sale last month, £112 6 0—Produce, 6¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	720½	£3019 2 9
Grenfell and Sons	185	1092 7 6
Nevill, Druce, and Co.	487	1854 3 3
Williams, Foster, and Co.	805½	5296 7 9
Mason and Elkington	585¾	2443 8 6
Copper Miners' Company	269	1063 18 6
Newton, Keates, and Co.	144½	1114 14 9
Sweetland, Tuttle, and Co.	271	1234 7 6
Total	3468	£17,108 10 6

NO SALE on Thursday next, Jan. 28.

Copper Ores for sale at Tabb's Hotel, Redruth, on Thursday week.—Mines and parcels.—West Tolgus 385—Crenver and Abraham 362—West Seton 131—South Crofty 100—East Pool 79—Wheal Basset 76—West Basset 71—East Grenville 61—St. Aubyn United 61—South Dolcoath 40—Botallack 30—South Roskear 21—Tremenhere 19—Annear's Ore 16—Unity Wood 15—South Frances 10—New Rosewarne 10—Wheal Buller 8—West Stray Park 2.—Total, 1497 tons.

PERUVIAN TIN ORE SOLD IN LIVERPOOL on Jan. 20.

Messrs. Bolitho, 3 tons, at 41*l.*; Messrs. Danbuz, 4 tons 10 cwts., at 42*l.* 5s.; and Redruth Smelting Company, 4 tons 10 cwts., at 42*l.* 5s.—Total, 12 tons.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

DRYSALTERY, CHEMICAL, AND SANITARY COMPANY (Limited).—Capital 60,000*l.*, in *5l.* shares. To acquire the business of Messrs. Robertson, Cook, Johnson, and Co., of the Imperial Works, Bromley-by-Bow. The subscribers (who take one share each) are—H. H. Williams, Ledbury-road, Bayswater; A. Johnson, Ferndale, Upper Clapton; C. Day, London-road, Upper Clapton; E. R. Southly, 7, South-square, Gray's Inn; Z. Cartwright, 22, Waterlane; W. M. Mead, Stratford; H. Jaggard, Wellington-street, Islington.

LONDON AND PROVINCIAL CARRIAGE INSURANCE COMPANY (Limited).—Capital 25,000*l.*, in *5l.* shares. To assure against damages to carriages, &c. The subscribers are—E. J. Craigie, the Myrtles, New Beckenham; G. A. Griffith, Priory-road, Kilburn, 80; W. R. C. Smith, 103, Eaton-square, 80; Nassau J. Senior, Lavender Hill, Battersea; J. J. A. Moss, Bath-terrace, Hammersmith, 1; W. Watts, Thames Ditton, 80; E. C. Chatterley, 25, Old Jewry.

HUMMUMS HOTEL COMPANY.—This is an unlimited company, the object being the acquisition of the Hummums Hotel, Covent Garden. The subscribers are—G. W. Craik, Barnsley, 40; T. Craik, Barnsley, 40; T. D. Dymond, Burntwood Hall, Barnsley, 40; S. Johnson, Wath-upon-Dearn, 40; J. J. Atkinson, Middle Temple, 40; C. Newman, Barnsley, 40; and C. H. Johnson, Sheffield, 1.

ABBEY MILL SPINNING COMPANY (Limited).—Capital 50,000*l.*, in *5l.* shares. To acquire a cotton-mill at Oldham. The subscribers are—J. Davies, Oldham, 10; G. Lunn, Oldham, 10; G. Preston, St. Ann's-square, Manchester, 200; H. Halton, Manchester, 10; A. H. Scott, Oldham, 200; H. Wood, Dukinfield, 50; and E. Rees, Gorton, 10.

CHANDORS' PATENT SELF-LIGHTING SYSTEM COMPANY (Limited).—Capital 5550*l.*, in *5l.* shares. To acquire and work a patent granted to Mr. J. A. Chandors for improvements in ignition fuses, &c.

LONGRIDGE COAL AND CANNEL COMPANY (Limited).—Capital 6000*l.*, in *1l.* shares. To purchase a coal yard at Longridge, at present in the occupation of Messrs. Pearson, Knowles, and Co. The subscribers for the most part reside at Longridge.

SOUTHSEA AND SOUTH OF ENGLAND CO-OPERATIVE SUPPLY ASSOCIATION (Limited).—Capital 10,000*l.*, in *1l.* shares. To carry on business on co-operative principles at Southsea.

LIVERPOOL AND NORTHERN LOAN AND DISCOUNT COMPANY (Limited).—Capital 5000*l.*, in *5l.* shares. To carry on the general business of a loan and discount company at Liverpool.

HAMPTON MILL COMPANY (Limited).—Capital 10,000*l.*, in *5l.* shares. To carry on a cotton spinning business.

NATIONAL INDEPENDENT LAND AND BUILDING COMPANY (Limited).—Capital 200,000*l.*, in *5l.* shares. This appears to be a Manchester land company. The subscribers are—E. Eaton, Manchester, 20; H. Whiler, Hyde Grove, Manchester, 100; W. Cliff, Brook House, Manchester, 100; J. Hilton, Swan-street, Manchester, 100; S. Kains, Whalley Range, Manchester, 100; and J. M. Percival, Manchester, 100.

HATHERSHAW SPINNING COMPANY (Limited).—Capital 60,000*l.*, in *5l.* shares. To carry on business as cotton spinners, &c. The subscribers (who reside at Oldham, take one share each) are—S. Dearden, J. E. Pemberton, H. Pollett, W. Turner, R. Davies, J. B. Broadhurst, and J. Wilson.

CARDIGAN UNITED LEAD MINING COMPANY (Limited).—Capital 40,000*l.*, in *5l.* shares. To acquire the leases of a mining property known as West Cwmystwith, in the parish of Llanphangel-y-Crwidden, Cardigan; also the Florida Mine in the same county, upon the terms of an agreement made between James Gamble and John Knight. The offices of the company will be at Bartholomew House, E.C. The subscribers are—W. Butcher, 35, King William-street, merchant, 5; J. Lord, Albert-road, N.W., of no occupation, 1; H. Matthews, Mappington Lodge, Farnham, no occupation, 5; H. Potter, Sewardstone-road, Victoria Park, merchants' clerk, 1; J. Knight, Vine Cottage, Upper Holloway, accountant, 1; W. Blackburn, Lime-street, stationer, 1; and H. Faulkner, Bow-lane, merchant. The first directors will be Messrs. J. Lord, C. H. Dashwood, C. O. Neuman, and C. Morris, the qualification being 40 shares, and the remuneration 500*l.* yearly.

CALDER CHEMICAL COMPANY (Limited).—Capital 7750*l.*, in *50l.* shares. To acquire the business of a chemical firm at Whitwood, Yorkshire.

JOSEPH AND ROBERT DODGE (Limited).—Capital 40,000*l.*, in *20l.* shares. To acquire the business of Messrs. Joseph and Robert Dodge and the business of W. J. Horn and Co., manufacturers of steel cutlery, Sheffield. The subscribers are—Robert Dodge, Sheffield, 300; T. H. Waterhorn, Sheffield, 60; R. B. Rodgers, Sheffield, 30; Julius Scharban, Sheffield, 10; J. Atkinson, 119, Upper Hanover street, Sheffield, 10; and J. Bashford, Sheffield, and J. D. Leader, Sheffield, 35.

VOSPER PATENT SEWING MACHINE COMPANY (Limited).—Capital 5000*l.*, in 10*l.* shares. To acquire and work letters patent granted to Mr. W. Vosper, of Stoke, Devonport.

GARNSWELL COLLIERY COMPANY (Limited).—Capital 2500*l.*, in 100*l.* shares. To purchase a seam of coal in the parish of Llangyfiach, in the County of Glamorgan. The company seems of purely local interest.

BUXTON STONE, BRICK, AND TILE COMPANY (Limited).—Capital 10,000*l.*, in 10*l.* shares. To acquire brickworks at Fairfield, Derbyshire.

CROMER WATERWORKS COMPANY (Limited).—Capital 10,000*l.*, in *5l.* shares. To supply Cromer with water.

WESTON POINT STEAM TOWING COMPANY (Limited).—Capital 10,000*l.*, in 10*l.* shares.

RYDE PAVILION COMPANY (Limited).—Capital 5000*l.*, in *5l.* shares. To purchase the Ryde Theatre, Ryde.

DERBYSHIRE STEAM CULTIVATION COMPANY (Limited).—Capital 6000*l.*, in 50*l.* shares. To deal in agricultural machinery, &c.

WARRINGTON LION HOTEL COMPANY.—Capital 12,000*l.*, in 10*l.* shares. To carry on the Lion Hotel, Warrington.

ECHOES FROM THE MINING MARKET.

Although we have had a steady market during the past week, business has to a certain extent been restricted, consequent chiefly upon the quiet state of tin, induced by the nearness of the Banca sale, and the rather lower tendency of metals generally. A decline of 15*s.* has taken place in the copper standard. This market is still singularly free from speculation, current business being entirely confined to the requirements of actual consumers, who, consequently, keep smelters in full work, orders for prompt delivery being taken very guardedly, and in many cases refused altogether. The lead market is entirely without new feature, but as existing prices are certainly remunerative to producers, there is no cause to complain. Iron is moderately active, but it does not seem that we are likely to witness any important reduction in the metal yet awhile. Indications, indeed, rather point in the opposite direction, and if the air was only cleared from the rumours of strikes we might already have witnessed something like an animated market, for orders generally are good, and the demand for pigs fair. Unfortunately, the aforesaid rumours help to prevent anything like buoyancy. At a late meeting of the Cleveland Mine-owners' Association, at Middlesborough, the Association informed a deputation of miners that the time had come in their opinion for a further reduction in wages, and that if the men would accept a reduction of 2*d.* per ton, to take effect from Feb. 13 next, the Association would be satisfied with that amount. What the miners will say to this remains to be seen.

The colliery share market has again been the most active one of the week, and a large amount of investment business has been transacted. The pride of place in demand has been attained by Chapel House, the next being Thorp's Gawber. Cardiff and Swansea, Great Western, Bilson and Crump, and others have all met with fair enquiry, but the business transacted in them has not been a tithe of the amount absorbed by the three first named. The public are apparently satisfied with the good return now being realised from Chapel House, and as there is every reason for believing that this return will be materially increased, the shares should be very cheap at anything under par (*5l.*) As it is they yield something between 16 and 17 per cent. per annum, with every chance of it being at least 20 in a few months. A return like this is amply sufficient, and for a good joint-stock colliery is as much as can be expected for a permanence. It is easy enough, of course, in times of exceptional prosperity, to declare fancy dividends, but no careful investor would think of basing the value of his shares upon the adventitious return of one or two extremely fortunate years. As we have already intimated, and as far as we can learn, the estimate is a correct one, the dividends in Chapel House are likely to increase in a handsome ratio, those now being earned being considered the lowest that are likely to be paid. In the early part of the week Thorp's Gawber shares were very scarce, and some high prices were realised for several lots. Towards the close, however, they became more plentiful. As we have several times informed our readers, there is a good deal of speculation in these shares, and it looks as if they have lately been held back for market purposes. Until the forthcoming dividend is known we must expect a fluctuating market.

Respecting the South Wales strike, the determined resistance of the men against accepting the masters' terms appears unabated. A full meeting of the employers' association was held yesterday (Friday), when the course already agreed on by the members of the council was submitted and ratified. The business done in Cardiff and Swansea shares, although large, has been at lower prices. We understand that no ill-effects are anticipated from the strike; but, of course, this must be more or less a matter of conjecture. The depression in the shares has been helped by the announcement of a forthcoming call of *1l.* per share, which will make *6l.* called up on each 10*l.* share. The fluctuations have ranged between 3 and 3¼ (5 paid).

A demand has lately existed for Tankerville Mine shares, which upon good reports have advanced to 9¾, 10¼. The shareholders now hope that some of Capt. Waters' sanguine predictions are about to be realised. On the week Dolcoath shares have slightly declined, so also have Carn Brea, East Lovell, Great Laxey, Pennerley, South Frances, Van, West Chiverton, West Basset, West Tolgus, Wheal Uny, and Wheal Grenville. Prince of Wales and Peevor shares have advanced. In the foreign mine share market but little change has taken place. Gold Run shares, however, have been in prominent request, but sellers have been the reverse of plentiful, notwithstanding the increased quotations. Water still appears to be gaining in many of our Cornish mines. Managers are using the utmost exertions to keep out the enemy, and in many cases with marked success. The floods, however, must have a serious effect upon sales of tin, and the diminution of supplies is likely to tell upon the Cornish returns. The following is a short account of the state of affairs at some of the principal mines:—

Botallack: Water gaining. Crenver and Wheal Abraham: Water very troublesome; expected to be dry to the 200 fm. level in a few days. Dolcoath: In fork. East Grenville: Work partly suspended. Pedn-an-drea: Over 100 fms. of water, which is gaining—accident to pumping-gear. St. Just Amalgamated: About 15 fms. of water. Treleigh Wood: Water above the 24: all bargains stopped. West Tolgus: In fork. West Seton: Water up to the 110; all ore ground covered; a new lift has been fixed. Wheal Mary: 120 fms. of water; troubled by floods from Wheals Kitty and Margaret, adjoining. Wheal Owles: A large flow of water, requiring the greatest vigilance. Wheal Basset: Water rising. Wheal Uny: In fork, but threatened by 40 fms. of water in Perseverance Mine. The above are only the more prominent cases.

Every mine in Cornwall is now suffering more or less from the late heavy rains, but a few days of fine weather would soon make a remarkable difference; as it is, however, in some cases the extra costs entailed must be very heavy.

JAMES H. CROFTS.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—S. Toy, Jan. 20: In No. 2 adit level driving east the lode at present is looking a little better, and producing some lead, but not enough to value. No. 4 stope over this level is much the same as last reported, worth 15*l.* per cubic fathom for lead ore. No. 1 adit level driving east is of a kindly appearance for the production of lead ores, and I think we shall have an improvement in this level soon by the congenial appearance of the strata, and by driving a few fathoms further east we shall meet with the shoots of lead ore which we have met with, and have been working on, below.

ABERYSTWITH.—J. Trevethan, Jan. 21: The lode in the 86, east of shaft, is wide and strong, and letting out a great deal of water. It will yield in lead ore about 25 cwts. per fathom, altogether a fine lode, with every appearance of further improvement. Our progress has been slow during the past month, our shaft-rods have often broken, and other parts of our machinery disordered, on account of the severity of the late frost. Everything is now in perfect order, and we are using every effort to make up for past delays, and I believe soon to be able to send you more cheering intelligence.

BAMPFYLDE.—James Juleff, Jan. 20: The stopes continue to look well, and are producing good quality copper ore. The 112, west of No. 4 shaft, is worth 20*l.* per fathom. The 102, west of No. 4, is looking very promising, and the strata more congenial for yielding copper ore. The 90, west of No. 4, is now getting off from the influence of the slide, and the lode is looking much better. The 70 end, east of No. 4, is producing excellent stones of copper ore. We are pushing on with dressing the copper ore, and shall soon have two parcels to send to Swansea.—Iron Mines: The adit stope at Stowford is worth 25 tons of iron ore per fathom. Nothing has been seen yet of the lode in Stowford adit cross-cut. On the whole, I consider the mines improving in appearance.

BEDFORD UNITED.—William Phillips, Jan. 21: There is very little change to notice to-day. The mine throughout continues to look much the same as reported last week.

BOG.—W. T. Harris, J. Barkell, Jan. 20: The 175 fathom level, driving west on Whitestone lode, is equally as rich for lead ore as it was in last report; in fact, there is no change in the bargains or pitches calling for remark since then. Friday being setting-day, you shall have a full report next week. We sampled to day 60 tons lead ore for sale on the 27th inst.

BOWDEN HILL.—Capt. J. Goldsworthy, Jan. 21: The adit level is extended towards the old mine about 76 fms.; there remains to be driven to take the lode, as near as can be estimated, from 75 to 80 fms.; this estimation is made judging from the dip of the lode north towards the adit. The ground in the end is showing strong indications of becoming easier for progress. The stratum is changing to a yellow description, similar to that accompanying the mineral-bearing stratum of the district; therefore, I look forward to see a favourable change ere long. I saw a gentlemen a few days since, he was the last agent employed in the mine under Mr. Ferney, he gave me a most excellent description of the lode in the bottom.

BRONFLOYD.—J. Davis, Jan. 19: In the No. 3 shaft, north lode, in the 96 fm. level, we are busily engaged putting in timber for stulls, to extend the stopes above this level; the No. 2 stope is looking better than ever, and we had some splendid stones of ore up from this yesterday. Stope No. 1, adjoining Joshua's winze, is not looking quite so well to-day. As requested, the 73 was carefully dialled a day or two back, and herewith I send you plan thereof—scale 1 in. to 6 fms. If you wish to show this work in my report for the general meeting I will reduce the plan and get wood-block done. This level certainly may be deemed the pioneer level and eastern trial of the mine; and, although attended with considerable expense, it will throw great light on our future progress in that direction, which is so strenuously recommended by every expert who has inspected the mine. The new masonry in this level, east of shaft, is now up to spring line for its present required length, and the arch is being turned over the first portion of it. In stripping down the sides here, to make room for the arch, we have exposed a very fine bunch of ore on the north or hanging wall, and if it goes up this stope will turn out better than our anticipations. By the plan just mentioned, you will see that the cross-cut south, put out 18 fms. east of shaft, has reached the carbonate of lime, or calc spar, course, which is the bed of our great north lode. At the point marked A on the plan there are some fine cubes of ore, and when the new arch is completed we shall extend the cross-cut through the carbonate course, and also drive east on its northern face; for the present, however, these points will have to be suspended, as, while the masons are at work, there is no exit for the stuff. The men employed are breaking ore at the old tribute pitch of the 52 east, where we have a rib of ore about 2 in. wide. We have lately had a deal of trouble with loose debris coming away from the hanging of the big stopes above the 84, and the men have been afraid to go in to throw the stuff down; however, it appears to be all over now, it causes delay, but cannot be helped. The mine is looking decidedly better at all points than it did a month ago; it is quite a pleasure to look at the No. 2 stope at the 96, and we must soon set about preparing to sink the main shaft another draft (say 14 fms.), which will make it 110 from surface. The proved consolidation of the lode, and the present value of the ore ground at the 96—that is, below the junction of all the lodes, which took place just above the 84—give every encouragement to attain greater depth, and I dope this will be agreed to.—No. 2 Shaft, Middle Lode: The four men hitherto employed in one bargain I have divided, two to strip down the lode east of Lewis's cross-cut, and two to drive west from Lloyd's cross-cut, and we have good ore at both points. In following west the small strings of ore out in this lode at Lloyd's cross-cut increase in width, and the lode, which proved very wide in the cross-cut, is becoming more compact and better defined. The pioneer level (73 east) of No. 3 shaft, above referred to, is intended eventually to come under this (No. 2) shaft—that is, 21 fms. deeper than the above-named trials at the 52. It should be remembered that from surface down to the 40 of this No. 2 shaft the ore, prior to 1861, was all obtained, and at good profits; and, from the present discoveries, there is every reason to expect the lode will further improve in depth; so that when this connection is effected we shall have like a second mine, and 21 fms. in height of wholly unexplored ground from whence to add to the returns of the main lode.

BURROW AND BUTSON.—John Christophers, James Mayne (St. Agnes), Jan. 19: At the 62 fm. level, east of engine-shaft, the lode is small, but looks promising for speedy improvement. At the 50, going west, it is getting more settled and larger, being now fully 3½ ft. wide, with spots of copper and stones of mundic.—Tonkin's: The 30 fm. level, going east, has improved, and is now worth 4 cwts. of lead and 1¼ ton of blende per fathom. The stope in the back of this level continues worth 3 tons of blende. The 20 fm. level west being poor at present, we propose to cross-cut north for the north part of the lode, as the back here is very large. The stope in the back west, on the main lode, is worth 3½ tons of blende per fathom. The stope in the back of the 20 west, on the north, or lead, lode, is worth 6 cwts. of lead and 1 ton of blende.

Williams's Shaft (Western Mine): At the 10 fm. level the middle lode driving east, is 3 ft. wide, and the caunter 1 ft.; together they are worth of copper, blende, and mundic, 2½ tons per fathom. By driving 3 or 4 fms. further eastward we expect to meet their intersection of the main lode. Having cut a plat at the 20 fm. level we are driving east on the middle lode to intersect the caunter and the main lode. We are also cross-cutting south to cut the main lode, as it has never been seen at and around this point under the 10 fm. level, and is going down where we may expect the course of ore which is dipping east from Wheal Butson. Strong gales of wind and floods of rain have greatly hindered our surface work.

P.S.—Since writing the above we have set the stope in the 20 fm. level, west of Tonkin's, on the lead lode, on tribute, at *8l.* per ton for lead and 30*s.* per ton for blende.

COURT GRANGE.—Capt. E. Dunkin, Jan. 21: The driving of the 12 fm. level, east of New Broginan shaft, is being prosecuted vigorously. The lode has somewhat improved since last week and has a better defined footwall, and I think we are closely approaching the orey ground. A constant stream of water issues out of the forebreast. The winze in the adit is also being sunk at a fair rate, in a hard, compact lode, spotted with lead ore, but not sufficient to value. We are carrying only a part of the lode in the winze. For dispatch we take up the sinks in the country, and carry only about 3 ft. of the lode. The dressing apparatuses we are getting in order as fast as possible, but the fact of their being in a very dilapidated state will render a long time necessary to put them in thorough working order. We will, however, do our utmost to finish them in the time specified. I am glad to say the water is down to the back of the 50 fm. level, and by the rate we are forking we shall have the mine thoroughly drained by Saturday.

CRENVER AND WHEAL ABRAHAM UNITED.—Wm. Thomas, Jan. 20: I am glad to say that during the last 24 hours we have forked 12 ft. of water; we are draining the 200, and we hope by the early part of next week to be in fork to the bottom of Sturt's engine-shaft, when a larger number of the men will be able to resume work. We sampled yesterday 362 tons of copper ore; but for the breakage at the adit of course our sampling would have been very considerably more.

DE BROKE.—T. Hodge and Son, Jan. 21: We see no change in any of the bargains worthy of notice since our last. On Monday next we propose sampling 15 tons of lead ore.

DENBIGHSHIRE CONSOLIDATED.—John Pryor, Jan. 21: The 112 east is in hard ground, the measure still continuing perfectly level, but the bearing ground above is equally as productive as when you saw it. As a matter of course these runs must find their way down into the driving, and yield considerably. Looking at the large extent of unwrought ground in advance of this level, and our near approach to the point of junction, our future is certainly bright. In the 112 west the appearance of the lode is everything that could be desired by any authority in mining matters, which so far goes to prove that our anticipations will be realised. The tribute pitch in the back of this level is yielding good lead. There is no other change of importance to mention. Good progress at dressing-floor.

DEVON GREAT CONSOLS.—J. Richards, Jan. 21: Wheal Maria, New North Lode: In the 28, west of the eastern shaft, the lode is 3 ft. wide, composed of mundic, capel, with a little of both tin and copper ore. In Gard's engine-shaft, in the 95 west, the lode is from 2 to 3 ft. wide, consisting of mundic, capel, quartz, and a little good quality ore. In the cross-cut north, at the 95 east, the ground is a little easier, and better progress is being made.—Wheal Emma, Railway Shaft, New South Lode: In the 160 east, the lode, or part thereof carried, is 5 ft. wide, composed of mundic, capel, quartz, and stones of ore of good quality. In Kitto's winze, below the 115 west, the lode is 4 ft. wide, worth 3 tons of ore, or 12*l.* per fathom. In James's rise the lode is 18 in. wide, composed of mundic, capel, quartz, with a small proportion of copper ore.—New Shaft, New South Lode: In the 145 east the lode is fully 6 ft. wide, and continues a good course of ore, worth 12 tons, or 60*l.* per fathom. In the 120 west the lode is 5 ft. wide, composed of capel, quartz, mundic, and ore, worth 5 tons, or 20*l.* per fathom.

DUNSLEY WHEAL PHŒNIX.—Wm. Skewis, Wm. Richards, Jan. 16: The whim-shaft is now 7 fms. below the 47; six men sunk the past month 11 ft., at 20*l.* per fathom; they will still continue to sink at the same price until the contract be finished; the ground is still favourable for sinking. The lode in the deep adit level has been driven west during the past month 4 ft., at 9*l.* 15*s.* per fathom; this end is suspended for the present, in order to put the men at the whim-shaft to drive west on the course of the lode at the 47; the men will not take before next Monday. The engine and pitwork are working first-class, and as the rains cease we hope the water will begin to decrease in the shaft.

DYLIFFE.—Edward Evans, Edward Rogers, Jan. 20: Dyliffe Lode: In the cross cut in the 120 we have cut into the lode, which is so far producing rich stones of lead ore. We shall be able to give you more particulars next week. There is no alteration worthy of notice in any other part of the mine since the report of the 13th inst.: 60 tons of ore have been sold this day to Messrs. J. Walker, Parker and Co., at 15*l.* 15*s.* per ton, realising 945*l.*

EAST DARREN.—Jan. 18: In the winze sinking under the 104 the lode has become small and disordered by a cross-channel of ground, being now about ½ yard wide, and unproductive for lead, but is again opening out in width, and looks promising. In the cross-cut north of stope under the 80 we have commenced opening eastward on the north part of the lode, which has a promising appearance, now yielding from 8 to 10 cwts. of lead ore per fathom. The tribute pitches through the different levels are without change worthy of remark, yielding fair quantities of ore. The progress made at the adit level since last reported on has been but slow, in consequence of being unable often to keep light, through an insufficient quantity of air, but from the present appearance in the forebreast, and from the termination of run as seen at surface, we hope in another 3 or 4 fms. spalling we shall let the water down, and be able to pass through; we have succeeded so far in keeping the water under the 104, but for the past couple of days we have had heavy floods of rain, during which time it is more than the present outlet in the adit level will pass through. Our machinery is in good working order, and drawing and dressing being pushed forward with all vigour. Since the frost has disappeared we shall sample to-morrow (Tuesday the 19th instant) 40 tons of silver-lead ore.

EAST WHEAL BASSET.—R. Pryor and Son, E. Adams, Jan. 20: On Friday last we set the 60 fm. level cross-cut to drive south of flat-rod shaft by six men, at 9*l.* 10*s.* per fathom; we are daily expecting to cut the lode at this point. We have cut through the Copper Hill lode at the 40, east of engine-shaft, and find it to be worth 10*l.* per fathom for copper ore. We also set three tribute pitches to six men, at tributes from 12*s.* to 13*s.* 4*d.* in 1*l.* The remaining tutwork bargains we set a month ago for two months.

EAST WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Jan. 16: We are slowly forking the water, and there is nothing new to report since our last.

EAST WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Jan. 21: The water is out of the 110, and the men commenced working yesterday; we are now forking below that level. The lode in the 110 rise is worth for copper ore 10*l.* per fathom. The stope above the 110 east is worth 6*l.* per fathom.

FRANK MILLS.—James Rowe, jun., N. Addems, Jan. 16: Setting Report: We have communicated the winze in bottom of the 115, south of engine-shaft, on west lode, with the rise in back of the 130 south, and have put six men to stope; north of winze, at 3*l.* per fathom, the lode producing 25 cwts. of lead ore per fm., and six men to stope south of winze, at 3*l.* per fathom, the lode producing 25 cwts. of lead ore per fathom. The 115 to drive, south of engine-shaft, on west lode, by six men, at 5*l.* per fathom, the lode containing a little lead, and producing 30 cwts. of blende per fathom. The 115, south of cross-cut, west of engine-shaft, on western branch, to drive, by six men, at 5*l.* per fathom, the lode producing saving work for lead. Winze to sink in bottom of the 100, south of engine-shaft, on west lode, by six men, at 6*l.* per fathom, the lode producing good stones of lead, and by present appearances will improve shortly. The 84 to drive, south of engine-shaft, on west lode, by six men, at 4*l.* 5*s.* per fathom, the lode producing 12 cwts. of lead ore per fathom. Stope in back of this level, by six men, at 1*l.* 12*s.* per fathom, the lode producing 8 cwts. of lead ore per fathom. The 72, south of cross-cut, west of engine-shaft, on west lode, by six men, at 3*l.* 15*s.* per fathom, the lode producing good stones of lead, and looking kindly for an improvement. The 45 to drive, south of No. 1 cross-cut, south of Orchard air shaft, on eastern branches, by four men, at 5*l.* per fathom, the lode producing good stones of lead. Winze to sink in the bottom of the 45, north of Orchard air shaft, by two men, at 5*l.* per fathom, the lode producing 6 cwts. of lead ore per fathom. Our tribute department is just as for some time past, the men earning fair wages. The machinery is in good working order.

GAWTON COPPER.—George Rowe, George Rowe, jun., Jan. 16: The lode in the 117, east of King's engine-shaft, is improving in character, and yields fine stones of ore. We have discovered some fine stones of ore in the 95 cross-cut going south through the lode, some short distance east of the cross-course, where it is showing a very kindly appearance, and likely to improve. The stope in the bottom of the 82 is worth 8*l.* per fathom. The lode in the stopes in the back of the 82 is worth 12*l.* per fathom. The lode in the rise and stope in the back of the 70 is worth 10*l.* per fathom. All other points are without change.

GORSEDD AND MERLLYN CONSOLS.—Wm. Edwards, Jan. 21: Gorsedd Lode: The lode in the bottom level continues quite as good as last reported. In the 60 yard level most encouraging features are presenting themselves, and as the men advance in the driving a decided improvement in the production of ore is the result.—Merllyn Shaft: I shall be able to report in my next of progress here. The ore sold last week has been delivered, and we are making good progress towards our next parcel.

GREAT CARADON.—Wm. Taylor, Jan. 18: We have cut through the lode in the 70 west; it is full 5 ft. wide, producing copper ore, mundic, blende, and stones of lead—altogether a very fine and promising lode, although not mineral enough to pay. It is certainly a lode that should be explored with all possible speed; it is letting out a good deal of water, which is a feature of importance, and the ground about it is very congenial for mineral.

GREAT RETALLACK.—John Harris, Jan. 16: The lode in the 40 maintains its size of about 6 ft. wide, which will produce about 1½ ton of blende per fathom. In our driving this week we met with a small bottom about 6 ft. long, which was sunk from what is called the 35, in the same class lode as we are driving in.

GROGWINION.—J. Kitto, Jan. 21: The only thing new I have to report to you is a further improvement in the intermediate level; here we have now a very good lode, and the end being sufficiently far advanced eastward we have commenced to rise in the back of the same in a good course of ore, towards the winze that we are sinking below the 24, which is also in good ore; the object in rising and sinking being to effect a communication between the intermediate and workings below the shallow adit level, and I expect to be able to accomplish this object in three or four months from this date, when I hope to be able to further increase our returns. There is no change to notice in the stopes or in any other part of the mine, things continue as good as usual, and the mine altogether looks very well. We have sold to-day 50 tons of ore to the Panther Smelting Company, at 15*l.* 16*s.* per ton, being 16*s.* per ton above the price realised at the last sale; this is the produce of the last four weeks' working.

HINGSTON DOWN CONSOLS.—J. Richards, Jan. 21: Bailey's Shaft: In the 150 west the lode is 4 ft. wide, composed of strong capel, quartz, mundic, and peach, with a little copper and good stones of tin ore; progress, however, is slow, the ground being hard. In the 150 west, east of Cocking's winze, the lode is 5 ft. wide, consisting of capel, peach, mundic, quartz, and ore, worth 20*l.* per fathom. In the 140 west, on the south part of the lode, the lode is 2 ft. wide, and produces a little ore. In the 140 west, on the north part of the lode, the lode is 2 ft. wide, composed of quartz, capel, mundic, and a little ore. The lode in the two stopes, in the back of this level (the 140), is still worth on an average 25*l.* per fathom. In the 120 west the lode is 3 ft. wide, consisting of mundic, quartz, capel, and a little ore. The lode in the two stopes in the bottom of the 120 west, east and west of Wadge's winze, is worth 15*l.* per fathom. The lode in the bottom of the 120 fm. level, west of Wadge's winze, on the north part of the lode, is still worth 15*l.* per fathom. In the 110 west the lode is large, 5 ft. wide, the leading part of which (2 ft. wide) is worth 12*l.* per fathom, and continues promising. In Brewer's winze, sinking below the 110 west, the lode is 2 ft. wide, and worth 4*l.* per fathom.

ILLOGAN.—R. Pryor and Son, Jan. 19: There has been but little change in any of the operations throughout this mine within the past week. We are making fair progress in driving the deep adit cross-cut, and the ground is just as when last reported on.

LADYWELL.—Arthur Waters, Jan. 21: The mine generally presents no change of note since last week's report. Surface work going on regularly.

NEW CONSOLS.—R. Pryor, T. Jenkin, H. Vial, Jan. 19: In consequence of the heavy floods of rain with which we have had to contend during the past week little progress has been made in the bottom of the mine, and there is no change worthy of notice in the 86 and 96 fm. levels. The men in the 50 are making good progress in driving east of shaft. All other underground operations are being pushed on with all vigour, and the stopes are producing fair-quality stuff for tin, copper, and arsenic. Our surface work is being carried on as fast as the weather will permit.

NEW HENDRA.—W. Rowe, Jan. 18: Having intersected another branch in the deep adit level of a kindly and promising appearance, we have decided to drive on it and prove its value. We have set the work to six men, for the month, at 4*l.* per fathom; and we are naturally anxious to see the result of the explorations.

NEW HOBB'S HILL.—T. Rowse, Jan. 21: Our present operations are confined to No. 1 stope, which is producing tin beyond the usual yield, and confirms the idea in last report that we improve in produce as we proceed westward. We get some branches of tin dropped into the elvan from the south, showing very much in character as that of Tinner's Lane. All the machinery is in full work, and looking fair for a good sampling.

NEW ROSEWARNE.—E. Hosking, W. Bennetts, Jan. 16: Setting Report: To drive the 67 west, of Pool's shaft, by six men, at 8*l.* per fathom; the lode is 2½ ft. wide, producing stamping work for tin. To drive the 58, west of Pool's shaft, by six men, at 5*l.* 10*s.* per fathom; the lode is 3 ft. wide, and worth 5*l.* per fathom, is letting out more water, and looks kindly. To drive the 46, west of Pool's shaft, by four men, at 6*l.* per fathom; the lode is 2½ ft. wide, producing saving work for tin. To drive the 22 cross-cut south, by four men, at 6*l.* per fathom. We have also set six pitches to 20 men, at an average tribute of 12*s.* in 1*l.*, the tributers to be paid at the rate of 50*l.* per ton for black tin.

NEW SOUTH MERLLYN.—R. Rowlands, Jan. 21: I have no change to notice since my last. We shall sell a parcel of ore on Tuesday next. Quantity will exceed estimates.

NORTH HENDRE.—J. Lean, Jan. 20: The lode in the south level presents much the same appearance as for some time past, producing lead to the value of 2½ to 3 tons per fathom. The two levels going out of No. 2 east also look very well, and yield respectively 1½ ton of ore per fathom. The lode in No. 2 west is at present in a disordered state, and the yield of ore has consequently fallen off; we shall push on the driving, hoping to meet with favourable lode at an early date. The two stopes we have at work are producing a fair quantity of ore. The water in the mine keeps much the same. Surface work going on satisfactorily.

NORTH POOL.—W. C. Vivian, F. Clymo, Jan. 21: One division of the lode is letting out the greater part of the water, and there are belts of rock each side of it fully 2 ft. wide; the composition is principally dark green chlorite, containing a large proportion of blende. The lode is of considerable size, and altogether of a very encouraging appearance.

NORTH PRINCE PATRICK.—John Jones, Jan. 16: It affords me an amount of pleasure to acquaint you with the present position and also the future prospect of your mine at this your first general meeting. Although I am not able at present to inform you of any great discovery, yet I consider the prospects of the mine greatly improved since the commencement of operations by the present company. We commenced on Oct. 19 last, with four men, to whom four others have now been added. During this time we have driven about 15 yards along the Silver Rake vein westward, through very obstinate ground, which yet improved gradually for the last 10 yards, being easier to drive, and also showing stronger indications of being near a cross-course (or north and south vein) the ground getting more mineralised every foot we drove, the spar and clay also being of such a nature that we may reasonably expect a good deposit of lead ore shortly. There are also a few nice spots of lead intermixed, but not, as yet, of any value. In addition to this we have set a partition at the bottom part of the shaft for about 34 yards, and we set the ladders. The gin, also, has been thoroughly repaired. I have also put two men in the 50 yard level to make a trial in a "flat" there, but I cannot say there is much lead as yet, although we have had a few nice lumps about the size of an egg, but I shall be greatly disappointed if it does not prove a good thing in a short time. It is my intention in the course of the next week, according to your instructions, to close for the purchase of an engine to put on the western shaft, after which I have not the least doubt but that the mine will prove a most successful undertaking.

NORTH TRESKERBY.—R. Pryor and Son, Ja 9: We have commenced to

open on the tin lode recently cut in the deep adit level, and we are pleased to say it is producing some good tinstuff. In the course of another week we shall be better able to judge of the size and value of this lode. The deep adit cross-cut is being continued in a beautiful channel of ground.

OLD BOTTLE HILL.—R. Unsworth, Jan. 20: In the 46, east of Hooper's winze, on Bucking-house lode, the lode is 1 ft. wide, producing a little copper, but not to value. The stopes east of Hooper's winze, in the bottom of the 36, the lode is 3 ft. wide, producing saving work for copper. We shall sell to-morrow about 2 tons of tin. The tribute pitches are without change.

OLD TINCROFT CONSOLS.—Jas. Pope, Jan. 20: In the 20, west of Diamond's shaft, the lode is 2¼ ft. wide, producing saving work for tin. In the 10, west of Diamond's shaft, the lode is 1 ft. wide, producing good tinstone. Here an improvement may be expected shortly, as just before us in the adit level a good lode of tin is gone down. I am glad to say the adit is secure, and the water will be drained from the 30 as soon as they drain it in Wheal Margaret, and other mines.

OLD TREBURGETT.—W. Hancock, W. T. Bryant, Dec. 20: The engine-shaft is sinking regularly below the 90. In the 90 ends and the 60 south driving has been by the side of the lode for speed; the lode will shortly be taken down, when you shall know the result. In the 80 south the lode is worth 7*l.* per fathom, and the ground improves for driving. The stopes in back of this level have improved a little, and will, we think, further improve soon. In the 70 north the lode is worth 8*l.* per fathom. In the same level south the lode is worth 7*l.* per fathom. The stopes in the backs of these levels are, taking one with another, much the same as last reported. Nos. 1 and 2 stopes in back of the 60 we have to-day suspended on tutwork, and the latter is set to two men, on tribute, at 14*l.* per ton for No. 1 quality dressed ore, and 8*l.* per ton for No. 2 quality. We expect some of the men will also take No. 1 stope on tribute. We have put two of the men from these stopes to cut winze plat, so as to commence to sink another winze below this level, about 30 fms. in advance of No. 3 winze; it will be commenced in a lode worth from 10*l.* to 12*l.* per fathom. We hope to communicate No. 3 winze with the 70 by the latter part of this month; the lode in it is worth about 10*l.* per fathom. In the 40 south the part of the lode we are driving on produces occasionally good pieces of silver-lead. Nothing new in the 60 cross-cut west. Owing to the Christmas holidays, and several of the men assisting in the shaft to fix pitwork, together with a large falling off in some of our stopes, we cannot sample at our usual time, but we are daily looking forward to improvements. We hope to get the impeller to work next week.

PARBOLA.—W. R. Rutter, Jan. 21: The 20 end, west of engine-shaft, has now probably been sufficiently extended to have reached Tregoning's shaft, but owing to the continuous rain we are having, although a large stream is issuing from the end, the shaft keeps brimfull of water. In order to ascertain the correct whereabouts of this end the level will be re-dialled in a day or so. The 10, driving east from Blewett's shaft, is passing through promising ground, and has lately discovered several more tin branches. The elvan course, from which all the tin here is extracted, has been worked by the tinners here for ages, consequently has been burrowed into in all manner of ways, until it has become, as it were, quite a labyrinth a little way below surface, hence the late and present superabundance of rain water quickly finds its way into these ancient workings, and subsequently into the unwrought portions of the elvans, which, when saturated, expand and fall off, thus causing much delay, especially in the shallow pitches. But for this the returns would have been quite as much as they have ever been. This, together with the considerable reduction recently effected in the expenditure, would leave a good profit. Dock shaft has been re-timbered, all the debris removed, and the tinstone recovered for some days past. It is now a much stronger and better winding shaft than it was before it collapsed.

PARYS MOUNTAIN.—T. Mitchell, Jan. 21: The stopes are, upon the whole, yielding much the same for copper as when last reported on, but are not turning out quite so much sulphur. The ground in the 65 cross-cut is looking very promising, with good strings of copper ore showing in the forebreast. The 90 cross-cut south is progressing favourably. The tribute pitches are looking as usual.

PRDN-AN-DREA UNITED.—W. Tregay, W. Prideaux, J. Pope, Jan. 16: Sump: The water is in the back of the 110, and rising very slowly, the engine keeping away the top water. We are fixing two good lifts, one from the angle above the 110 up to the 70, and one from that angle to drop to the 120. On these being fixed we shall fork the mine again pretty quickly. When the mine was flooded before we were not enabled to do this; consequently we do not think the present disaster will entail more than a tithe of the time and expense the former one did. Our machinery being now in much better order than formerly, and the boilers in good condition, we do not anticipate further difficulties than those already before us.—Cardozo's: In the 90 west end the lode (north) is worth 20*l.* per fm. In the 80 west end the lode (north) is worth 16*l.* per fm. In the 70 west end the lode (north) is worth 20*l.* per fm. In the 60 west end the lode (north) is worth 12*l.* per fm. In the 55 west end the lode (north) is worth 8*l.* per fm. In the 47 west end the lode (north) is worth 8*l.* per fm.—Trevena: In the 47 east cross-cut north we have intersected some small strings of tin, and believe there are more branches yet before us.—Critchley's: In sinking the 30 we have much water, consequently we make only moderate progress; this may continue during the rainy season, but the 90 rise ought soon to drain it. The ground in the 90 rise is favourable, and yet the progress made has not been good; this week some of the men having taken a fancy against this place has caused some difficulty in pushing it up as quickly as we could wish. We have sold this day at Carvedras 16 tons 3 cwts. 0 qrs. 16 lbs. of black tin at 60*l.* per ton.—969*l.* 8s. 7d. No other change to report.

PENNERLEY.—W. T. Harris, J. Delbridge, Jan. 20: Potter's Pit: At the 65 fm. level the shaftmen are employed making the necessary preparations for sinking deeper. Having cut the lodge, we are cutting ground for penthouse, &c. The level driving west, on the north lode, is not yet into the rich course of ore gone down in the level above, according to measurement. The ground is nearly spent, and we are daily expecting the improvement. The lode is producing some fine stones of ore. The lode in the winze sinking below the 55 is now worth 80*l.* per fathom. The level driving is worth 10*l.* per fathom, and indications are favourable for an important change. The lode in the rise in back of the 35 is worth 20*l.* per fathom. The rise in the back of the 25 is worth 15*l.* per fathom. To-day we have sent out samples for the sale of 80 tons lead ore on the 27th inst.

PRINCE OF WALES.—J. Gifford, J. Pryor, Jan. 20: In the 77 east the ground is still favourable for driving; price, 110s. per fathom. No change in the lode since last report. In the 65 east the ground is favourable for progres—price 7*l.* 10s. per fathom. The tribute pitches are looking much as usual. In silver lode there is no change.

RHEIDOL.—J. Ridge, Jan. 16: The engine-shaft is now 7 fms. below the 20, and is being sunk by six men, at 14*l.* per fm. There is a stream of water issuing from the lode; this, with the improved character of the rock, is a favourable indication of a productive lode at the next level, which I hope we shall be deep enough for in six weeks from this date. The stope in back of the 10 has improved for lead ore, and will now yield 15 cwts. per fathom in the east end, but not looking so well for blende as when last reported, yielding from 25 to 30 cwts. per fathom. Owing to the stope being close on the level I have suspended it for the present, and placed the men to extend the level east. When this level is extended a little further (say 3 or 4 fms.) I purpose putting a rise up in the better part of the lode for ventilation, and when this is done the lode can be stoped, and a winze sunk to the 20 much cheaper than at present. I have set this to four men, for the month, at 6*l.* per fm., the lode in which is slate, spar, carbonate of lime, and spots of lead ore; according to the dip of the ore in the stope, we shall intersect it in 6 or 9 ft. driving. In consequence of the lode in the 10 west not looking so well, I have suspended it for the present, and put the men with the men from the stope to push on the level east.

— Telegram (Jan. 18) from Capt. Ridge: Mine looking better; favourable indications in shaft. Ore improved in stope.

ROMAN GRAVELS.—Arthur Waters, Jan. 21: The 95, north and south of old engine-shaft, continues to open out in a strong, productive lode, quite equal in value to what was given in the last setting report. The 80, south of Corfield's, is worth 30*l.* per fathom. Other points as for some time past. We sample next week.

ROSEWALL HILL.—J. Bugelhole, J. White, Jan. 21: We are glad to say that we are in fork at Goole Pellas, and have resumed the sinking of the new flat rod shaft below the 25 fm. level, where we have now a lode 5 ft. wide, and worth 40*l.* per fm. The 25, driving east of this shaft, is yielding some good stones of tin, but not enough to value. The 25 west is still in a productive lode, worth 10*l.* per fathom. The 25, driving east of the cross-cut, on Goole Pellas lode, is worth 8*l.* per fathom; and the 25, driving west, is worth 6*l.* per fathom. We have suspended the cross-cut north for the present, fearing to flood the mine while the present wet weather continues if we intersect the north lode. In the old mine we have 20 fms. of water, but are forking slowly. We have a considerable quantity of the tributer's tinstuff at the 110, which we cannot bring to surface until we can fork the water below this level, consequently we think it prudent to postpone our account meeting for a month; The north carbona is looking a little better; now worth 12*l.* per fathom. In the deep adit level we are making fair progress; the level, however, is very badly crushed, and requires a considerable quantity of timber.

SOUTH CONDURROW.—Wm. Rich, Wm. Williams, H. Abraham, Jan. 20: We are making fair progress in the 93 cross-cut, south of King's shaft. The lode in the 82 fathom level east is worth 14*l.* per fathom. The lode in the 82 fathom level west has been comparatively poor for some time past, but the lode has gradually improved since last report, now worth 30*l.* per fathom. The lode in the 71 end west is worth 35*l.* per fathom. The lode in the rise in back of this level is worth 20*l.* per fathom. The 70 end, west of King's, is worth 12*l.* per fathom. The 60 east is worth 14*l.* per fathom. The 60 end west is worth 8*l.* per fathom. There is no lode yet intersected in the 60 cross-cut north. We have resumed driving the 30 east of new shaft; the lode has a promising appearance.

SOUTH GREAT WORK.—S. J. Reed, Jan. 20: In the flat-rod shaft, which is being sunk below the 35, the Orchard lode shows signs of improvement, opening out larger, and producing tinstuff at an average percentage; the ground during sinking of the last few fathoms has been soft, requiring a good deal of timber, it is now, however, getting harder, and better progress will be made. In the 35 east the lode is 3 ft. wide, a branch from the south having fallen in with the lode, which is now worth 9*l.* per fathom for tin. The drivage west has been opening up tribute ground, and in the course of 4 fathoms more we shall reach the tin ground driven through in the level above, and where a winze has been sunk several feet, worth 15 per fathom. The lode in the 25 east is 4 ft. wide, containing good stamping work. In the 15 east the lode has a fine-looking appearance, being large, and worth 6*l.* to 8*l.* per fathom; this end is being driven by four men, and is in advance of any other; the price paid is 30s. per fathom, and 6s. 8d. in 1*l.* tribute. There are now 12 tribute pitches in this part of the mine, and a regular supply of tinstuff for the stamps is being kept up. The quantity of water at present is enough to work three times the number of heads employed. The flat-rod shaft part of the mine has not been affected by the continuous heavy rain as it is not connected with the main adit; the great length of this adit renders it difficult to keep open, being upwards of four miles in extent, the debris from several old mines being constantly falling into it. We hope soon to make it complete, so far at least as our property is concerned, and I hope to get the water out to the bottom in a few days.

SOUTH ROMAN GRAVELS.—J. W. Powning, Jan. 21: The sinking of the engine-shaft below the 20 is being pushed on by nine men, and favourable progress is being made. I see little or no change to notice in the mine during the past week. Will send full report next week.

SOUTH TOLCARNE.—J. Vivian and Son, J. Paull, Jan. 21: The engine-shaft has been cut down in the eastern or drawing end, so as to give it greater room from the adit to the 10 fm. level. Since the completion of this operation the dividing of the engine-shaft from the whim-shaft has been proceeded with, and this together with the fixing of the ladder-road from the 20 to the 30 will be completed this week, and with the commencement of next week we shall begin driving the 30, east and west of shaft, where we trust before long to meet with some improvement. In the 20 west, the north branch on which we are driving is not going so much to the north of west as it was. Should it turn to a westerly course we shall cease driving on it, as it will not then lead to a junction with Vivian's and Fraser's lodes. In this case we purpose giving some further trial to Fraser's lode in the bottom of the 20, where it is of large size, composed principally of spar, and contains some yellow, grey, and black copper ores.

SOUTH WHEAL FRANCES.—A. T. James, John James, John Ople, Jan. 16: Setting Report: Pascoe's shaft is now about 5 fms. 5 ft. below the 175, and is being urged on by nine men, at 27*l.* per fathom; the lode and branches together are about 3 ft. wide, producing a little tin, but not to value. The 134, west of cross-cut, to six men, at 15*l.* per fathom; the lode is 4 ft. wide, producing low quality tinstuff at present, presenting a more favourable appearance. The 124, west of cross-cut, to six men, at 12*l.* 10s. per fathom; the lode is 4 ft. wide, worth 10*l.* per fathom. The 124 winze, east of cross-cut, to four men, at 12*l.* per fathom; the lode is 3 ft. wide, producing low-quality tinstuff. A stope in the bottom of the 124, opposite the cross-cut, to six men, at 6*l.* per fathom; the lode is 4 ft. wide, worth 12*l.* per fathom. To stope the bottom of the 114, by nine men, at 5*l.* 10s. per fathom; the lode is 4 ft. wide, worth 8*l.* per fathom. The 114 west, to six men, at 12*l.* per faahom; the lode is 5 ft. wide, worth 15*l.* per fathom. To stope below the 104, by six men, at 7s. per ton; the lode is 6 ft. wide, worth 10*l.* per fm. We sold on the 6th inst. 7 tons 6 cwts. 3 qrs. of tin ore, at 60*l.* per ton. In consequence of the incessant rain our engine is now going from five to six strokes per minute against three strokes per minute during the summer months. We are, however, pleased to say that nothing has yet occurred to stope the sumpmen from working at the bottom of Pascoe's shaft.

ST. AGNES CONSOLS.—W. Vivian, Jan. 21: The engine-shaft, sinking with nine men, is now 2 fms. below the 74. We are pushing on the sinking of this shaft with all practical speed to intersect Wheal Kitty rich tin lode. In the 74 cross-cut, driving north of the engine-shaft, we are meeting with branches of spar, containing mundic and tin. There is water issuing from both the branches and the rock. At the 74 driving west of the cross-cut, on the flat lode, there is no change to notice.

ST. DAVID'S.—J. Jones, Jan. 20: The water having much abated at Jones's shaft I intend to recommence operations there in a day or two. The four men at Pantasa shaft have commenced driving along the Lady Hill vein, but I am not able at present to say that it is rich for ore, although not devoid of indications the ground looks very promising; the air is very foul, and I intend setting air-pipes to relieve it.—Edward's Shaft: The level driving south gradually improves for ore as we go on; the rise continues very regular, yielding very nice lead.

ST. JUST AMALGAMATED.—Richard Pryor and Son, Wm. Bawden, Thomas Richards, Jan. 18: There has been no change throughout this mine since our report of last week. In consequence of the heavy falls of rain our progress has been greatly retarded, but we hope to resume operations in the bottom part of the mine in a few days.

ST. LAWRENCE AMALGAMATED.—Jan. 21: I am glad to say that the men driving from the Swallow cut two small branches of ore in the end of the level last night, and, from the promising appearance of the lode, we may expect to have a further improvement shortly. We are progressing at just the same rate as last week. The lode in the end of the 52 yard level, driving east of shaft, has improved a little since last week, and, from the present kindly indications, anyone would reasonably expect to meet with some good ore shortly.

TANKERVILLE.—A. Waters, Jan. 21: The mine throughout is loooking very well indeed, and as soon as we have got clear of the delay caused by the frost and snow the other day, the samplings will be increased. We have to-day sold 100 tons lead ore, at 15*l.* 12s. 6d. per ton.

TRELEIGH WOOD.—E. Hosking, Jan. 16: As the water is in the mine there were no bargains set yesterday. The engineers are getting on very well with the engine and hope to get it to work on Thursday next. The water is about 6 fms. above the 24 fathom level.

TRELEIGH WOOD.—E. Hosking, Jan. 20: The fires are lit, and we expect to put the engine to work this afternoon about four o'clock. The water is 12 fathoms below the adit level, therefore we have no bargains working to report on. We hope to have good speed in forking out the water.

TREVARRACK.—James Pope, Jan. 20: At the engine-shaft, sinking below the 74, the lode is 2 ft. wide, composed of peach, capels, and mundic, with stones of tin, and occasional branches dropping in from the north, which I consider a good indication. In the 74 east the lode is 20 in. wide, with stones of tin, but not enough to value. In the 60 east the lode is 18 in. wide, composed of peach and soft spar, with stones of tin.

TYLLWYD.—John Paull, Jan. 21: In consequence of the late heavy rain the floods from the side of the hill have brought down a lot of stuff, and filled a portion of the water-course, thereby stopping the water going on to the wheel. This we had cleared and water on the wheel again last night, but by this morning a small portion was again filled, which we are now busily engaged in securing, and shall have it all right this afternoon. The south-west level is still very slow of progress, in consequence of the ground being very hard, but has improved a little during the last week. The 20 has improved also, and will yield fully 1 ton of lead ore per fathom, and from present appearances will further improve very much by this day week. The lode in the winze at mouth of adit level is from 2 to 3 ft. wide, containing clay-slate, spar, a little blende, and lead ore, and will produce of the latter 1 ton 5 cwts. per fathom. Little has been done in the cross-cut north since last reported, in consequence of the men being engaged in clearing the last month's stuff. The late very wet weather has impeded our surface operations a little, but everything is being urged on as fast as possible.

VAUGHAN.—Jan. 18: In the deep adit level east the lode is large, and the present end is now in a soft channel of ground, which requires timber being put in as we advance, but we hope shortly to enter firm ground again.

WEST ESGAIR LLE.—R. Harvey, Jan. 21: The men from the 24 east are still engaged cutting plat at the 34, and as soon as this is completed and the shaft cased and divided to the bottom, they will at once resume the driving of the 24 east, on the course of the lode. The 34 east is impreving for lead ore, and I must hope that we are no great distance off the course of ore that we expect to meet with in this level; I am pushing the driving on as fast as possible by six men. The tributers have commenced bringing thin ore to surface, and I expect to have it all up this week, when they will at once commence dressing it, and from the appearance of the stuff I think they are likely to get a good parcel of ore for market. The wheel is working well, and pitwork in good condition.—Western Mine: We have cleared the dead stuff accumulated in the 37, and the men will begin cross-cutting towards the south lode to-morrow. No change in any other part of the mine to notice.

WEST GODOLPHIN.—John Pope: Jan. 21: Caunter Lode: 60 fm. level north-west, is worth 30*l.* per fathom; ditto, south-east, 15*l.* per fathom. The 50, south-east, is producing saving work for tin; the 40, north-west, is worth 7*l.* per fathom; rise in back of 40, 7*l.* per fathom. Vivian's shaft, sinking below the 20, is worth 8*l.* per fathom.—Wilson's Lode: No lode has been taken down at any point during the week.

WEST GREAT WORK.—S. J. Reed, Jan. 21: In the new shaft, called the Duke's, the No. 2 lode has a strong masterly appearance, being highly mineralised, containing rich tinstone, and seldom do we find better indications of a large producing lode than in this for the depth reached. In driving west on the Great North lode it is quite 2 ft. wide, and worth 9*l.* per fathom. I consider now our returns will soon increase.

WEST MARIA AND FORTESCUE CONSOLS.—William Skewis, N. Coward, Jan. 21: West Maria Lode: There is no change in the 104 west since last week's report. The same remark will apply to the 93 west and the 93 cross-cut north. The lode in the stope in the bottom of the 93 west is worth 30*l.* per fathom, and the lode in the back is worth 30*l.* per fathom.—North Lode: The stope in back of the 71 west is worth 18*l.* per fathom.

WEST MILWR.—W. Francis, — Holway, Jan. 20: Another joint has been intersected running east and west in the cross cut south from the West Meadow shaft, composed of spar and a little lead ore for 2 in. wide, the measures still continuing of the most congenial kind.

WEST TANKERVILLE.—A. Waters, Jan. 21: The lode in the 63, north and south of boundary shaft, is worth 1 ton of lead ore per fathom. The stope in the 50, north of shaft, is worth 1¼ ton per fathom. The stope in the 50, south of shaft, is worth 2 tons per fathom. The 46, driving north of junction, on No. 2 caunter, is worth 1¼ ton lead ore per fathom. We are preparing another parcel of lead and one blende for sampling.

WEST WHEAL GORLAND.—J. Mayne, Jan. 21: In consequence of the heavy rains the men were unable to work in the bottom levels, but I am now pleased to say they have all resumed their work. The lode in the 44 end, driving west of shaft, is worth 20*l.* per fathom. The lode in the bottom of the 10, west of shaft, is 9 ft. wide, and worth 80*l.* per fathom. The lode in the end driving east of the bottoms, towards the shaft, is of the same value as last reported, and the same remark applies to the other points in operation. The machinery is in good order, and working well.

WEST WHEAL TOLGUS.—Jan. 21: There was not any harm done to anything else by the bob breaking in the 40, at Richards's shaft, on Tuesday, except in the beam itself. At Taylor's shaft the water was down to the back of the 115 last night, and by this time we hope the 115 end men are again at work. If things go on well we shall soon be in fork again. The rain is very great. There is no alteration to notice, the best end being under water. The lode in the 105 end is from 2 to 2½ ft. wide, yielding all of 3 tons of ore per fathom. The 95 end is still hard and poor, and very wet. There must be a hard close bar still before the end, as the water is still standing for some few feet deep in the winze. The new winze in the 85 is looking well, yielding 10 tons of ore per fathom The 85 end is in; lode large and poor. In the 75 end the lode is still disordered and poor. The only alteration to notice at Richards's shaft is a little falling off in the value of the lode in the 40 east end.

WHEAL ARGUS.—T. Trahair, Jan. 20: The tributers in the back of the 20 fm. level west, from Collyer's shaft, are getting on favourably since they began to work. The stamps are working well, and stamping a great quantity of stuff, but of rather low quality.

WHEAL CREBOR.—J. Andrews, Jan. 20: The lode in the stope in bottom of the 120, east of Cock's shaft, is worth 15*l.* per fathom. The lode in stope in back of the 120, east of rise, is worth 25*l.* per fathom. The lode in the stope in the back of the 120, west of rise, is worth 15*l.* per fathom. The lode in the 108 east is 18 in. wide, and unproductive. The lode in the 72 east is 4 ft. wide, composed chiefly of quartz and capel. In the 48 east the north part of the lode we are driving is composed of quartz, capel, and mundic, and yields good stones of copper ore.

WHEAL GRENVILLE.—E. Hoskin, W. Bennetts, Jan. 16: The water is forking, and we hope to draw from the 150 on Monday. The water having been in, no change has taken place in the shaft or 160 east and west. The stope below the 140, east of winze, is worth 15*l.* per fathom. The lode in the 140, east of cross-cut, is worth 15*l.* per fathom. The stope above the 140, east of cross-cut, is worth 15*l.* per fathom. The stope above the 140, east and west of rise, is worth 15*l.* per fathom. The ground in the 130 cross-cut, north of new shaft, is favourable, and the men are making fair progress. In the 130 cross-cut, north of north shaft, since our report of Thursday last, we have met with another branch. We are pressing on this point as fast as possible, as we think we are nearing the lode. The lode in 130, east of north shaft, is 18 in. wide, yielding stamping work. The lode in the winze below the 120, east of north shaft, is 18 in. wide, and produces a little tin. The stopes above the 120, east of north shaft, are worth 8*l.* and 10*l.* per fathom respectively. The stope below the 110, east of north shaft, is worth 10*l.* per fathom.

WHEAL GRENVILLE.—E. Hosking, W. Bennetts, Jan. 21: Although we have no increase of water on the great lode, our old lode is letting down such a great quantity that it has risen to the 140 fm. level. The men are making fair progress in the cross-cuts, but there is no change in any part since our last.

WHEAL UNY.—W. Rich, M. Rogers, W. Rich, jun., Dec. 16: We have the water to the back of the 160, and hope in a few days to resume operations in the bottom of the mine. The lode in the rise in the 150 west carries a little tin. There is nothing new to report in the 150, east of Goodinge's shaft. The 140, east of King's is worth 8*l.* per fathom. The 140, west of the incline shaft, is worth 12*l.* per fathom. The 130 end west is unproductive. The 130 end, east of King's, is worth 18*l.* per fathom. The 120 east is worth 20*l.* per fathom. The rise in the back of the 120 west is worth 12*l.* per fathom. The 110 end east is worth 10*l.* per fathom. The 100 east is worth 8*l.* per fathom. The 40 west carries stones of tin. The winze below the 30 west is worth 5*l.* per fathom. We have to-day sold 13 tons 1 cwt. 0 qrs. 8 lbs. of tin.

MINERS' COTTAGES.

It appears that Mr. MACDONALD, M.P., is highly dissatisfied with the present habitations of the miners in several parts of Scotland, and threatens, unless action is at once taken by the local authorities, to bring the subject under the notice of the House of Commons. Similar complaints, we may say, have recently been made with respect to the cottages occupied by the miners in several parts of England. But we cannot see that our coal and iron masters are entirely to blame for this state of things, for in many places the greatest difficulty is experienced in obtaining land for the erection of workmen's cottages. Miners, as a rule, are not considered the most desirable neighbours by quiet, homely people, for their habits and tastes are somewhat peculiar, and they are better adapted for forming a community amongst themselves than for becoming members of one already established, and living in peace and quietude. But there is another way in which the question may be looked at. The miners themselves have shown no great desire to have their dwellings improved, or they would no doubt have been in many instances; whilst those who have really good houses show how little they care for them by the manner in which they are kept. But it may also be said that the men, by their Unions and combinations, have been far more desirous of having their wages advanced than their dwellings improved. That kindly feeling which formerly existed between employers and employed has been entirely undermined by agitators, so that the men who are now so clamorous with respect to all that relates to the payment for their labour, and who do not disguise their hostility to those they work for, can scarcely expect to receive that consideration and kindness that was formerly shown to them. There are districts where the workmen and their families have been well cared for in every respect, where education has been provided for the young, chapels for all, with libraries, reading-rooms, and everything calculated to promote the welfare of a large community, yet the very persons for whom all this has been done have shown more allegiance to those whom they pay to be their leaders and masters than to those who have done so much for themselves and their families. Such was the case at Staveley, where the company have spent upwards of 20,000*l.* for the benefit of their workpeople, and who have upwards of 500 houses to locate a portion of them in.

That a great many of the miners' houses are capable of great improvement no one will dispute, but we should like to see the men taking a little interest in the matter themselves, instead of leaving it entirely to others.

We, however, cannot see why the employers, who in many instances are owners of cottage property are so much to blame for the unhealthy state of many places where their workpeople live. In almost every place there is some authority to see that proper sanitary arrangements are carried out, and it is to those persons that the initiative must be taken in the matter. When such is done we have not the slightest doubt but what our mine owners will be too happy in forwarding the work. But at the same time it must not be forgotten that much depends on the persons who are to be benefited, for they can very often undo all that has been accomplished towards their own health and comfort. That this is the case is known to all persons who have visited our colliery villages, for the inhabitants of many of them actually create that which ought not to exist, and is most injurious to themselves and families. We fully admit that something should be done for remedying the admitted evil, but we do not see in what way it can be done by increased legislation, seeing that the existing law is sufficiently strong to enforce all necessary sanitary arrangements, and make miners' dwellings healthy and habitable. We, therefore, do not see why because Mr. MACDONALD is in Parliament there should be special legislation in the interest of the miners only.

GRAMME'S MAGNETO-ELECTRIC COMPANY, which has been formed under favourable auspices, with a capital of 250,000*l.*, in shares of 10*l.* each, are inviting subscriptions for 140,000*l.*, being part of the first issue of capital, the remainder whereof, 35,000*l.*, is taken by the vendor as part payment of his 145,000*l.* purchase money. It is mentioned that the use of electricity has hitherto been restricted in its commercial applications owing to its expense and the trouble of obtaining it cheaply, but that the Gramme magneto-electric machine, which has been extensively used for illuminating and laboratory purposes, as well as at the Mines de la Loire, and at those of Messrs. Chagot and Co., in Saone et Loire, giving in every case great satisfaction, now supplies electrical power on such a scale as to enable it to be used in connection with numerous branches of industry, and that the enormous force of the electricity produced by the invention will give as great a stimulus to commerce as that given when steam superseded other motive powers. The machines have been principally manufactured and supplied hitherto by the Société Gramme, at prices yielding an average of 100 per cent. profit. They have also been constructed, under license, by M. Breguet, of Paris, and the British Telegraph Manufactory, of London; and arrangements have been made with those manufacturers, as well as with the Société Gramme, to manufacture for this company on such terms as will enable immediate deliveries to be effected with considerable profit to the company. By these arrangements the company can at once proceed with business, thereby avoiding the delay in realising profits, generally attendant on the establishment of a new company. These profits will be in addition to the annual revenue to be derived from the royalties accruing from licenses. The purchase embraces the right to use the invention for certain purposes—lighting, electro-metallurgy, chemical processes, &c.—in Great Britain and Ireland, as well as in Belgium, Austria, Bavaria, Saxony, Sweden, Norway, and Italy, and it is anticipated that the sale of exclusive licenses in Belgium and Austria for distinct branches of business should alone produce more than sufficient to recoup the whole capital of the company. It is explained in the prospectus, which will be found in another column, that the use of (say) only 2500 of the Gramme machines (an estimate exceedingly small as compared with its numerous applications for light alone throughout the various countries in which the patent rights are acquired by this company) would yield from royalties only, averaging 25*l.* each, a sum of 62,500*l.* a-year, more than 35 per cent. on the amount of capital now proposed to be issued, irrespective of the profit on the sale of machines. The revenue from the sale of machines should be very considerable, irrespective of those required for light, especially when the vast number of different departments that exist in each of the branches of business included under the head of metal plating, metallurgy, and chemical manufactures are considered.

NEW MAGNETO-ELECTRIC MACHINE FOR THE MECHANICAL PRODUCTION OF THE ELECTRIC LIGHT, AND OF VOLTAIC ELECTRICITY.—The electric light, which is so intense and so cheap, when it is produced by motion transformed into electricity by means of magnets, has not yet said its last word, on the contrary it is still in its infancy; in the end it will no doubt be used all over the world for illuminating lighthouses, ships, and workshops; nor must the immense services rendered by electricity during the siege of Paris be forgotten. We are, therefore, happy to hear that M. Garnier, who has so long been attached to the Alliance Company, and who has acquired so much experience in the construction and working of magneto electric machines, has just joined and entered into partnership with one of our most skilful engineers and electricians, M. E. Hardy, 6 Avenue de Lamothe-Piquet, and they are about to construct a new mechanical generator of electricity of a very perfect kind, which may perhaps very nearly approach the desideratum. Their principal model or type of a magneto-electric machine is 1 m. 35 in height, 1 m. 25 in width, and 1 m. 10 in length, that is to say, very little over a cubic metre in bulk. This machine is so solidly put together that it is impossible for it to get out of order, and it can be removed anywhere ready for action without having to be taken to pieces, which is an immense advantage. To be put in motion it requires a force of 2½ to 3 horse power. In order to produce its maximum effect it must make from 400 to 450 revolutions per minute, and then gives a light equal to that of 250 Carcel burners, consuming each 1½ oz. of oil per hour; and this intense light, so absolutely constant and steady, can be obtained by the expenditure of a few pounds of coal. When the machine is required to produce continuous currents, and always in the same direction, for electrotyping purposes, for instance, it is necessary to adapt a commutator of a new form, extremely durable and efficacious. The price of the standard model, with four series of 16 coils and 16 magnets, is reduced to 6000 francs (240*l.*) This appears to be a heavy price, but it is in reality a very moderate one when it is considered that this machine produces torrents of electricity and of light, that it loses none of its power by work, and can never wear out.—*Practical Magazine.*

BLASTING CARTRIDGES.—Mr. B. S. Lloyd (for Messrs. Holt, Garren, and Cracknell, of Sydney) has patented a method of increasing the disruptive power of an explosive substance by confining it within a resisting envelope, by

which means a complete combustion is secured from the entire bulk of the contents being turned into gas before the envelope is ruptured, and a corresponding economy of explosive material is obtained.

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Iron Industries of Cumberland (R. Meade); Mining in the Pacific States (D. E. Mellias); Mining on the Pacific Coast—Nevada; Tecoma Silver Mining Company; Flagstaff Silver Mining Company; Mining in New South Wales—its Sudden Rise and Depression (R. Adams); Mining in Queensland; Rock Drills; Chemical Metallurgy—the Nascent Process; A Leaden "Twelfth Cake"; Railways and Tramways (J. Walker); Utilising Tin Refuse; Cornish Mining and "Improvements"; Successful and Unsuccessful Mining (E. Skewis, T. H. Allen); Tolbenny Iron Mine, Cornwall; Red and Brown Hematite Iron, Ippleden, South Devon (G. Sparke); Successful Mining near Holywell; Wheal Mary, St. Dennis (T. Parkyn); West Seton and other Mines; Roman Gravels; Wheal Agar and its Management.—Australian Mines Reports—Diamond Frauds Trial—Foreign Mining and Metallurgy, &c.—Meetings of the North Prince Patrick, Melindur Valley, Great Snowdon Mountain, and New Prince of Wales Companies.

The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JAN. 22, 1875.

COPPER.	£	s.	d.	£	s.	d.
Best selected...p. ton	92	0	0-	94	0	0
Tough cake and tile.	90	0	0-	92	0	0
Sheathing & sheets..	96	0	0-	97	0	0
Bolts	99	0	0-	100	0	0
Bottoms	99	0	0-	100	0	0
Old	85	0	0-	87	0	0
Australian, Wallaroo	92	0	0-	93	10	0
ditto other brands	91	0	0-	92	0	0
Chili bars, g.o.b.	83	0	0-	83	10	0
Wire ...per lb.	0	1	0-	—		
Tubes	0	1	0¼-	—		

BRASS.	per lb.
Sheets	9¼d.-10¼d.
Wire	9¼d.- —
Tubes	12d.-12½d.
Yellow metal sheathing	8¼d.-8¾d.
Sheets	8¼d.-

SPELTER.	per ton.					
Foreign on the spot..	23	15	0-24	0	0	
,, to arrive ...	23	15	0-23	17	6	

ZINC.						
In sheets	32	10	0-33	0	0	

TIN.						
English blocks ...	£100	0	0-	—		
Do., bars (in brls.)	101	0	0-	—		
Do., refined	102	0	0-	—		
Banca	100	0	0-102	0	0	
Straits	91	10	0- 92	0	0	
Australian	90	10	0- 91	0	0	

TIN-PLATES.*	per box.				
Charcoal, 1st qua.†	£1	18	0-	—	
X Do., 1st quality ...	2	4	0-	—	
IC Do., 2d quality ...	1	16	0-	1	17 0
IX Do., 2d quality ...	2	2	0-	2	3 0
IC Coke	1	7	6-	1	8 6
IX Ditto	1	13	6-	1	14 6
Canada plates, p. ton..	18	10	0-19	0	0
Ditto, at works	18	0	0-18	10	0

* At the works, 1s. to 1s. 6d. per ton less. † Add 6s. for each X.

Terne-plates 2s. per box below tin-plates of similar brand.

IRON. per ton.	£	s.	d.	£	s.	d.
Bars Welsh, in London	8	17	6-	—		
Do., to arrive	8	12	6-	8	0	0
Nail rods	9	10	0-	—		
,, Staffd. in London..	10	10	0-	—		
Bars ,, ditto	10	10	0-11	0	0	
Hoops,, ditto	11	10	0-12	0	0	
Bars ,, at works	9	10	0-11	0	0	
Hoops,, ditto	10	10	0-11	10	0	
Sheets, single, & plates	12	10	0-12	15	0	
Pig No. 1, in Wales	5	0	0-	6	10	0
Refined metal, ditto	7	0	0-	8	0	0
Bars, common, ditto	7	15	0-	8	0	0
Do., merchant, f.o.b. in Tyne or Tees	8	0	0-	8	10	0
Do., railway, in Wales..	6	15	0-	7	0	0
Do., Swed. in London.	16	0	0-17	0	0	
To arrive	16	10	0-	—		
Pig, No. 1, in Clyde	4	7	0-	5	12	6
Do., f.o.b. Tyne or Tees	4	0	0-	4	5	0
Do., Nos.3,4, f.o.b., do.	3	10	0-	4	0	0
Railway chairs	5	0	0-	5	5	0
,, spikes	12	10	0-14	0	0	
Indian Charcoal Pigs, in London, p. ton	8	0	0-10	0	0	

STEEL.	per ton.					
Swed., in kegs (rolled)	—		—			
Ditto (hammered)	19	0	0-20	0	0	
Ditto, in faggots	20	10	0-	—		
English, spring	19	0	0-24	0	0	

LEAD.	per ton.				
English Pig, com.	23	5	0-	—	
Ditto, L.B.	23	10	0-	nom.	
Ditto, W.B.	24	0	0-	—	
Ditto, sheet	24	15	0-	—	
Ditto, red lead	25	0	0-	—	
Ditto, white	30	0	0-32	0	0
Ditto, patent shot	26	10	0-27	0	0
Spanish	22	15	0-	—	
QUICKSILVER (p. bot.)	24	0	0-	—	

REMARKS.—The business of the week has not presented any new feature of special interest. An average trade is doing as trade goes, and it is of a satisfactory character, being principally, if not entirely, confined to the requirements for home consumption, and for shipment abroad in fulfilment of orders. Prices generally are steady, but there is too little as yet known regarding the probable course of events to influence operations in one direction or another. On this account forward contracts form the exception, not the rule, and buyers are content with limiting their purchases to present necessities. But while there is no important change to chronicle, the expectation of coming improvement is as strong as ever it has been. There are causes at work which may possibly retard the development of trade as could be desired, notably among these being the still existing uncertainty which overhangs the relations between capital and labour, which has already very seriously affected the producing powers of the country; but this evil has now been of such long continuance, and the deleterious results have been so marked and so wide-spread, being experienced prejudicially by the producer, the consumer, and most of all by the artizan, that surely by this time it may be hoped that self-interest, if nothing else, will open the eyes of all whom it may concern to the necessity which exists for the final settlement of the question upon such terms as shall not blight the prospects of the coming year and send away the trade of the country to foreign parts. The money market is easy, but there is no official reduction in the Bank rate.

COPPER.—During the early part of the week, indeed until Thursday, there was a marked improvement in the tone of the market, chiefly occasioned by the increased demand for manufactured copper and yellow metal for India, and later on in the week by the purchase of Chili bars for consumption. These two causes combined to strengthen the position of holders. Had the purchases been of a speculative character it would have been otherwise, but it was considered that India coming forward as a buyer once more of manufactured copper and yellow metal was a most favourable feature, and the Chili bars which have changed hands have been almost entirely bought for the furnace, and thus the market is lightened materially, but the announcement of the Chili charters on Thursday being 2600 tons has rather tended to stay business for the moment, and operators are holding back until the market assumes a more decided appearance. Under existing circumstances it is impossible to forecast the future. At all events, it is satisfactory that no rash speculative movement is likely to interfere with the turn which the market may legitimately take. Should supplies be excessive, current quotations can hardly be maintained unless the deliveries improve in like proportion. The spring trade is coming on, and should a resuscitation in copper take place, as well as in other departments of trade, it may be that not only will greater activity mark this year's experience as contrasted with last year, but that higher prices may be realised.

The attendance of those interested in this metal is apt to be too exclusively concentrated upon the out-turn of expected charters from Chili. It may be that but too little discrepancy exists between charters and shipments, but it is possible that charters may never become shipments, and though so many hundred tons are chartered they may be composed of very low produce ore, which will yield but a small percentage of copper, or, although originally taken up for copper, may ultimately be appropriated to some other export produce. Surely the safer guide would be the particulars of positive shipments from Chili and other sources of supply, as compared with the deliveries during corresponding periods. Such statistics would be less liable to mislead than the mere announcement of the Chili charters. Another reason why charters from Chili afford but comparatively indefinite information is that many weeks—sometimes months—elapse between the time that charters are announced and shipments are made, and it would be quite as easy, and more reliable, to telegraph shipments per steamer or sailing vessel, as the case may be, so that the time of probable arrival could be calculated upon, the quantity more correctly ascertained, and the effect exercised upon the market would be more legitimate. Australian copper has been in improved demand, and Wallaroo cake has changed hands at 92*l.* to 93*l.*, and ingots 94*l.*, usual cash. Burra has realised 91*l.*; English tough, 90*l.*; best select, 91*l.*; and 4 by 4 Indian sheets have been in demand, and sold at 95*l.* 10s. and 96*l.*; and yellow metal has been done at 8d., but sellers are now asking higher prices, and business has been done at 8¼d. The quotations for Chili bars on early 'Change were firmer, there being more enquiry, and the effect of the announcement of charters yesterday appears to have amounted to very little. G.o.b. are now quoted 83*l.* 10s. to 84*l.* Two cargoes of ores are reported to have been sold at 16s. 3d., being an advance of 3d. per unit upon previous sales. This appears to be an indication that smelters are not overstocked, and that they have a sufficient number of orders on hand to require further purchase of furnace material.

IRON.—The fact that there was no alteration in the prices of list houses on Quarter-day has afforded an amount of stability to the market which it had failed to possess before. Intending buyers, realising that there will no change in the price of first-class iron for another quarter of a year, a conclusion contrary to their anticipations, have given out their orders more freely, which would have been executed before had it not been for the doubt which overhung the future, but which the firmness of the masters has dispelled. The general business has improved, demand is becoming better, and inasmuch as a good many furnaces are out of blast, and production consequently lessened, fewer orders will furnish an abundance of employment than would otherwise be the case. Not only are back orders being given out, but fresh orders for execution in the spring are coming forward, and with the probability of cheap money it is reasonable to suppose that business will improve as the season advances. Prices are now reduced to a comparatively no lerate limit, so that the argument of quotations being abnormally high can hardly now hold good. The margin of profit realisable by the masters is now so small, owing to the price they are still compelled to give for coal, that it is impossible for them to accept lower quotations than those now ruling. Of course, the maintenance of the prosperity of the trade necessarily depends upon the permanency of the good understanding between masters and men, which, unhappily, is not yet assured. In South Wales especially there is an uneasy feeling existing, which may culminate in a lock-out, but the masters are most unwilling to take this extreme step unless absolutely compelled to do so in self-defence.

The improved position of the railway property of the country in the matter of economy of management, &c., will certainly cause attention to be directed to the maintenance of permanent way and rolling stock; and as but few orders comparatively on this account have been given out for some time past, it is expected that during the coming season a large influx of business in railway material generally, both for home and foreign account, will afford increased employment to the iron mills. In the pig iron trade in the North of England there is not much doing, buyers rather inclining to hold back in the anticipation of reduced prices; but makers, on the other hand, are firm. No. 1 rules at 65s.; No. 3, 59s. An effort is being made to bring about a general reduction of wages in the Newcastle and Durham districts among the pitmen and iron workers, but no definite steps have been taken. A reduction of 10 per cent. in the wages of the blast-furnace men has been decided upon, and is to come into force in the early part of next month. Some of the rail mills in the North of England which have been lying idle for a considerable time are now in operation again, which is an indication of present revival, as well as presenting the hope of brighter prospects in the future. At the beginning of the week the Scotch pig-iron market opened flat at about 72s. 6d., but steadied during the day, and at the close of Monday there were buyers at 72s. 9d. On Tuesday the tendency was towards further decline, but on Wednesday the market rallied, and at the close there were buyers at 73s. 3d. for cash, since which time prices have somewhat advanced to 73s. 9d. to 74s.

SHIPMENTS.

Week ending Jan. 16, 1875	Tons 8,314
Week ending Jan. 17, 1874	7,236
Increase	1,078
Total increase for 1875	Tons 3,759

LEAD.—The market shows a decline of about 15s. per ton during the week, good soft English pig being now obtainable at 23*l.* 5s., and Spanish 22*l.* 10s. It is not anticipated that there will be any further important decline at present upon these quotations.

SPELTER.—Ordinary Silesian is ruling at 23*l.* 15s., both on the spot and at outports. A good business is reported in English hard, at 17*l.* 10s.

QUICKSILVER.—The market is not so firm as it has been, and 23*l.* per flask has been accepted.

TIN.—The market was quiet at the beginning of the week, and small parcels of Straits changed hands at 93*l.* to 93*l.* 10s., usual cash terms. As the week advanced the tendency was towards lower prices, and business has been reported in Straits at 91*l.* 10s. cash, and in Australian at 91*l.* English ingots are quoted 99*l.* to 100*l.*

TIN-PLATES.—The market is firm, and prices, without having undergone any alteration, are stiffening.

Messrs. James and Shakspeare—COPPER: We note further transactions in Chili regulus to arrive at 16s. 6d. and ore at 16s. 3d. per unit; but importers refuse to part with any more stuff, except at an advance on said rates. Consumers have gradually absorbed the bulk of the bars offering from second hands, and prices show a recovery of 10s. to 20s. per ton on the values ruling last week. The Chili charters for first half of present month were advised by telegram, on morning of 21st inst., as equal to 2600 tons pure, but no details given; this news has made but little alteration in the position of the market, and we consider our lowest quotation for good ordinary brands to be the minimum figure at which business could possibly be done, as the bulk of the metal now here or afloat is not for sale at present prices. Australian sorts are steady, and purchases of Burra have lately been made here for export to the East. In English, we note further sales of India sheets at 95*l.* 10s. and 96*l.* per ton, and smelters are now so well employed with this work as to be unable to accept further orders where prompt delivery is required. We estimate the business in this description during the past four weeks to have exceeded 1000 tons.—TIN: English remains in small request, and purchases can be effected on easier terms. Foreign is still irregular, and since Friday last a further reduction of about 2s. per cwt. has taken place. The depression has, no doubt, to a great extent been caused by the continuance of heavy arrivals both of Straits and Australian, which have deterred buyers from operating, except when tempted by apparently low rates; consumptive demand being still good, we scarcely see how values can fall much lower, especially when it is taken into consideration that no more tin is coming to market than of which the existence has been known for some time past. Our quotations are about those now ruling; but without orders either to buy or sell, it is difficult to give exact figures at which business could be done.—LEAD: Owing to a sudden and large influx of Foreign, this metal has become weaker, and orders for English pig have been taken at reduced prices.

Messrs. Henry Rogers, Sons, and Co.—IRON: Scotch pigs have fallen 2s. during the past week, but have again recovered 1s. 6d. per ton. Middlesboro' pigs are in small demand. Finished iron is not in much request, but prices are steady.—COPPER has fluctuated somewhat since our last report, the lowest price being 82*l.* 10s., and the highest 83*l.* 10s. for G.O.B. Chili bars. The Chili charters for the first fortnight of January being yesterday advised as 2600 tons the price is again lower. G.O.B. bars are now quoted 83*l.*—TIN: Prices are lower—92*l.* for Straits, 91*l.* for Australian having been accepted.

THE IRON TRADE—(Girffiths's Weekly Report).—Friday Evening, Jan. 22: There has been a large business done this week in Scotch pigs. The closing price last week was 73s. 6d.; the market closes to-day at 74s. 9d. sellers, which is about 1s. advance on the week. Makers' iron, Coltness, Langloan, and Gartsherrie, are all 2s. 6d. per ton dearer. We quote makers' No. 1 iron as follows:—Gartsherrie, 90s.; Coltness, 93s.; Calder, 91s.; Langloan, 93s.; Summerlee, 88s.; Monkland, 77s., f.o.b. Glasgow; Glengarnock, 88s.; Eglinton, 77s., f.o.b. Androssan; Shotts, 88s. 6d., f.o.b. Leith; Kenniel, 84s., f.o.b. Bo'ness. Our market has been more active since Quarter-day. The decision arrived at by the masters in Staffordshire and other centres has induced the merchants here to give out numerous "indents" for foreign markets, which have been kept back under the impression that more favourable terms might be obtained. The decision, however, of the masters on Quarter-day, in respect to price, having dispelled all hope of a reduction in price, business at our Exchange takes a more normal course, and the aspect of the market is altogether more favourable. The enquiries for rails are numerous; but the present low prices prevent the Middlesborough houses particularly from offering to take extensive lots, and the Welsh strike engenders the greatest caution in respect to new business among the Welsh makers. On this account, we have no sales of magnitude to report this week. The advices from America continue unchanged; the trade is depressed, and recuperation progresses very slowly. The principal feature in our market is the continued demand for sheet-iron, which may in a great measure, be owing to the active condition of the galvanising trade at Birmingham and the Wolverhampton district. The kinds of iron most in request here are shee s, hoops, nail rods, and small rounds and squares, and bars; the latter, however, being almost invariably specified for well known Staffordshire brands. This circumstance clearly indicates that the machinists and engine shops of the United Kingdom are active, and, we believe, in a healthy and prosperous condition.

The deputation of ironmasters, which consisted of Mr. George Barker (Chairman of the Ironmasters' Association), Mr. J. W. Sparrow, Mr. Hunt, Mr. Fisher Smith, Mr. W. N. Solley, with Mr. Daniel Jones (the secretary of the Ironmasters' Association), had an interview with Mr. Moon and the chairmen of the railway and canal companies connected with South Staffordshire at Euston yesterday, and laid before them the present position of the district as affected by the rates of carriage of iron and materials into the district and throughout the Black Country, as well as the rates on finished iron to the shipping ports and consuming centres, urging upon them the necessity of a considerable revision to meet the present state of the trade and foreign competition, and were very courteously received, and a promise given that the whole subject should receive early and the best attention.

The MINING SHARE MARKET opened with more activity this week, and there was a fair demand for a few mines, both of tin, copper, and lead, but towards the close things became dull, and a fall took place in several shares. A great many mines are suffering from floods of rain, such as have not been seen in Cornwall for many years. It is hoped, however, that the worst is over, and that most of them will soon be in fork again, though for a time their returns may be affected.

At the copper ticketing in Cornwall on Thursday the standard declined 15s. It was an eastern district sale, and the 3468 tons of ore sold realised 17,108*l.* 10s. 6d., or an average of 4*l.* 18s. 6d. In regard to tin, this metal keeps flat, and will probably remain so until after the Dutch tin has been purchased.

Among the mines dealt in since our last have been Carn Brea, Wheal Peevor, Dolcoath, Wheal Grenville, Wheal Crebor, Tankerville, West Tankerville, Penstruthal, East Lovell, Hingston Down, Marke Valley, Roman Gravels, and South Roman Gravels. Carn Brea have further declined, and leave off 55 to 60; Tincroft, 28 to 30; Cook's Kitchen, 9 to 9½; Dolcoath, 50 to 52½; East Lovell have declined to 7¼, 7⅜; Devon Great Consols, 1⅞ to 2. Bog have been enquired for at ⅝ to ¾. Great Laxey, 10½ to 11; the directors have declared a dividend of 8s. per share. Wheal Grenville, 5¼ to 5⅜; Gawton, ⅜ to ⅝; Great Wheal Vor, ¼ to ½; Herodsfoot, 3¼ to 3⅜.

West Tolgus, 65 to 67½; the lode is now in fork at this mine, but the returns have been affected for the last month. Wheal Peevor is in good demand, at 4⅜ to 5¼; the shaft is now down to the 60, and the mine paying costs, with prospects of good profits. Hingston Down, 20s. to 25s.: the sale of ore on Thursday (260 tons) realised 712*l.* 14s. 6d. Glasgow Caradon, 1⅜ to 1⅝; the directors have declared a dividend of 7½ per cent., making 12½ per cent. for the year ending Dec. 31. The sale of ore on Thursday (240 tons) realised 1363*l.* 4s. 6d. At the Wheal Owles meeting the accounts showed a balance against the company of 12,652*l.*, but they have been stocking their tin, and have now about 200 tons unsold. At the Wheal Edward part of the mine the 60, extended under the sea, is now 140 fms. beyond high-water mark, and the lode poor. West Chiverton, 2 to 2½; the sale of lead ore for four weeks realised over 1800*l.* The best parcel (70 tons) brought 19*l.* 1s. 6d. per ton; the second (60 tons) 8*l.* 15s. per ton.

South Roman Gravels, ¾ to 1; it is stated that upwards of 1800 of the new shares have been applied for and paid upon, and the directors have now informed those who have not taken their proportion that unless applied for at once they will be allotted to others who may desire to have them. The issue of the whole will give the company nearly 3000*l.*, and money seems alone required to make the mine a great success. In reference to the great cavity just met with in the 20 west, we may remark that these sort of cavities in the lodes have made large quantities of lead in the richest mines around South Roman Gravels, and are considered the most favourable features in the district. At Tankerville the greatest yield of ore per fathom has been, and is now, we believe, from the sides of the great cavity so often referred to some time ago; and in reference to this cavity in South Roman Gravels in particular the agent writes—"I feel fully persuaded that it will not prove an exception, and believe that a large deposit of ore is associated with it." Ladywell, 2⅝ to 2¾; New Consols, 2 to 2⅛.

Marke Valley, 22s. 6d. to 27s. 6d.; at the meeting there was a balance of assets over liabilities of 1376*l.* Old Treburget (pref.), ⅝ to ¾; Parys Mountain, 8s. to 10s.; Pennerley, 1¼ to 1½; Penstruthal, 13s. to 14s.; Prince of Wales, 9s. to 11s.; Providence Mines, 5 to 5¼; Glaisdale Whinstone, 20s. to 22s. 6d.; New Hobb's Hill, 1¾ to 2⅛; Roman Gravels, 12 to 13; Rookhope Valley, 10s. to 15s.; South Carn Brea, 1¼ to 1⅜. South Caradon, 110 to 120; the sale of ore on Thursday (820 tons) realised 5439*l.* 6s. 6d. South Condurrow, 4⅜ to 5¼; St. Ives Consols, 30s. to 35s. Tankerville shares have been quieter this week, and leave off 9¾ to 10¼. Van, 21 to 22, ex div.; Van Consols, 2 to 2¼; West Basset, 7⅜ to 8¼; West Esgair Lle, 2 to 2¼; West Frances, 9½ to 10½; West Tankerville, 12s. 6d. to 17s. 6d., and more in demand. Wheal Basset, 17½ to 22½; Wheal Crebor, 17s. 6d. to 22s. 6d.; Wheal Kitty (St. Agnes), 5½ to 6; Wheal Uny, 3½ to 3⅝. The Grogwinion Company sold 50 tons of ore on Thursday, at 15*l.* 16s., or 10s. per ton more than the previous sale.

St. John del Rey, 260 to 265: the advices show gold produce for December 35,500 oits. Heavy rains had caused landslips, but no damage. Gold received by Neva, 64,048 oits., or 7383 ozs. Don Pedro del Rey advices show a loss of 463*l.* 5s. 10d. on November month, when the returns were 4819 oitavas of gold, at a cost of 2511*l.* 7s. 4d. Port Phillip, ⅜ to 1; in November 3315 tons of quartz were crushed; gold obtained, 692 ozs., worth 2694*l.* 0s. 4d.; costs, 2478*l.* 4s. 4d.; profit, 215*l.* 16s. 1d.; and an available balance of 1466*l.* 3s. 10d. Almada and Tirito, ⅝ to ¾; Birdseye Creek, 3 to 3¼; Cedar Creek, 1¼ to 1⅜; Chontales, 10s. to 15s.; Don Pedro del Rey, ⅝ to ⅞ dis.; Emma, 1½ to 1⅝; Flagstaff, 2¼ to 2⅜; Frontino and Bolivia, 5s. to 7s. 6d.; Last Chance, 20s. to 25s.; Malpaso, ⅝ to ¾; Malabar, ⅝ to ¾; New Quebrada, 3 to 3¼; Panulcillo, ¼ to ⅜; Rica Gold, ½ to ⅝; Richmond, 7 to 7½; South Aurora, 12s. 6d. to 15s.; Sweetland Creek, 2⅝ to 2⅞; Tecoma, 1¼ to 1½.

The Market for Mine Shares on the Stock Exchange during the week has been somewhat less active, with irregular values, but the tendency has not been altogether unfavourable. The comparatively less firm aspect of the metal market has had the effect for the time of staying investment purchases; but, on the other hand, holders have not evinced much disposition to realise, it being generally believed that the present is only a temporary pause in the improvement apparent of late.

American descriptions continue neglected, and in most cases quotations are almost nominal. Hydraulic mines continue in fair demand. Blue Tent remain steady at quotations. Birdseye Creek have improved in price, and are slightly in demand. Cedar Creek and Sweetland Creek unchanged.

Richmond Consolidated, 6⅜ to 7⅛. Cablegram received, "Week's run, $47,000." The winze from the 400 ft. level is now down 120 ft. in fine ore. The cross-cut reported last week at 100 ft. depth in this advanced portion of the main lode proved the vein at that point to be 70 ft. wide—nearly double the width attained at the 50 ft. level in the winze—thus demonstrating the reversed-wedge shape of the ore body in section. and making every foot won in depth of continuously increasing value. The great richness of the ore appears to be fully maintained. The *Eureka Sentinel* of Dec. 16 reports that—"A large quantity of charcoal is being received at the bins of the different furnaces, notably at the Richmond, where thousands of bushels are stored away for the winter." Dec. 23—"The amount of charcoal being brought to the different furnaces is by no means decreasing. An open winter will permit the running of all the furnaces during the cold season." Dec. 30—"A considerable amount of charcoal is now being brought to the Richmond furnace by pack mules. A string of 40 or 50 mules packs nearly the same amount as the customary loads hauled by wagon, while the transportation from camp to furnace is attended with rapidity during the present condition of the roads." The furnaces have been permitted to run in full blast, while at this time last year it was with the utmost difficulty that either ore or charcoal could be transported, necessitating an almost total suspension of business. The transportation of both ore and coal the present season has been in no way retarded, and the probabilities are that the furnaces will be kept in constant operation, except when of necessity they close a short time for repair. The gross bullion product was 531,210 lbs. from the Richmond Eureka Consolidated, K K. Mine, and the Hoosac Mine, of which the Richmond furnaces produced 290,000 lbs. The winter terminus of the new railway is called the Alpha Station, and an hotel is in course of erection there. The stage from Eureka now takes passengers from that town to the new line in five hours. Since Dec. 1 last the Richmond Company have forwarded 880 tons of bullion to be refined, but a large stock is still in hand, much of which it may be hoped will shortly be refined on the spot at the company's own works. The amount of bullion since the commencement of the season's operations on April 22, 1874, was $1,575,000. The production of bullion since Sept. 1 is estimated at $872,000. The increase in actual production of the latter half of the period is thus considerable, but the large increase in the rate of profit is of much more moment, an increase which is the most marked from the end of October, no doubt owing to great addition to the former average of ore caused by the late discoveries and forward development on the main lode. Eberhardt and Aurora, 4⅞ to 5⅛; South Aurora, 9-16ths to 11-16ths.

Emma shares have improved to 1 9-16th, 1 11-16th; the Chairman having returned from America, it is understood that some hopes are entertained that a portion of the original purchase money may be recovered from the vendors; upon this assumption considerable speculative purchases have been made. Flagstaff shares have been firmer, and close at 2⅜ to 2⅝; the vendor, it appears, has returned to Paris, and it is rumoured that at the forthcoming meeting an influential section of the shareholders may bring considerable pressure to bear upon the board in support of the immediate commencement of legal proceedings against those associated with the early conduct of the company's affairs. Last Chance, 1 to 1¼; Tecoma, 1¼ to 1⅜. The Chicago Company received advices that two furnaces had been running for eight days, and that the net profit for December amounted to $7000; but as the roads were blocked the transport of bullion had been temporarily delayed.

Blue Tent, 5 to 5½; Colonel Tozer is still washing at Enterprise claim. The weather is reported as rather cold, which may make it more advantageous to defer the clean-up for a little while. Sweetland Creek, 2½ to 2⅝; everything at the mine is progressing as usual, except that the question of water supply is in abeyance, the contract having expired at the end of the year. The agent is not able, therefore, to continue washing. Cedar Creek, 1⅜ to 1⅝; washing was going on steadily at the Yankee claim, although there has been some little hindrance from the clay, &c., which, however, was now quite under control. Colonel Ludlum says that he has water enough to continue washing on this claim until the middle of February, even if there should be no more rains before that date. He speaks in his letter, in another column, of cleaning-up about the middle of this month. Birdseye Creek, 3 to 3¼; the washing is going on regularly, though the dry cold weather is somewhat against it. The new tunnel in the Stohr claim is making rapid progress, and everything moving forward satisfactorily.

Colorado Terrible, 3½ to 4; since Dec. 19 the account sales of shipments amount to 3197*l.* net. The usual monthly statement has not arrived, but the agent in one of his letters states that the balance of value against the costs of mining, &c., is roughly calculated at $18,000. The weekly reports continue to be satisfactory. The main shaft is now being sunk below the 7th level, and the 7th level west drift is advancing, both being on a good vein of ore. The dividend of 4s. per share (referred to last week) will be paid on Feb. 10, free of income tax. After the payment of the dividend it is estimated that the ore in hand and in transit, including the 71st shipment, will realise sufficient to provide for remittances to the agent to cover all costs up to the end of March, and thus leave the whole of the product of the first three months of the year to the credit of the com-

pany, besides the stock of ore on hand on Dec. 31, which is valued at $36,000. New Pacific, ⅜ to ½; the directors have this week issued a circular stating that, pending certain communications from the superintendent as to the future working, they have decided to stay working, at all events during the winter months.

St. John del Rey, 260 to 265; the reports from the mine continue satisfactory. December returns amounted to 33,500 oits.—equal to 1150 oits. per day; produce, 9·6 oits. per ton. Sierra Buttes, 1⅞ to 2⅛; Plumas Eureka, 1¼ to 1⅜; there is no change at either of these mines. London and California, ⅜ to ⅝; the vein in the Prospect level maintains its previous character, and the ore still continues rich. The Gulch level is being driven in the direction of the ledge, and is shortly expected to intersect it. Independence, 1⅜ to 2⅛; the superintendent reports that a cross-cut has been driven into the middle shoot 30 ft. east of the shaft, in very good ore; and a telegram has since been received stating that the vein in the cross-cut at the bottom of the shaft, 100 ft. deeper, is also yielding good ore. The mine is opening out well at all points, and more stamps are only required to make increased profits. The additional stamps will be erected in the spring of this year.

Cape Copper shares have changed hands at 30½ to 31; 700 tons of ore have been sampled for sale by public ticketing on Feb. 9. New Quebrada, 2⅜ to 3¼; Rio Tinto, 9⅜ to 10½; Russia Copper, 2⅜ to 3¼. English and Australian, 1¾ to 2; at the date of the last advices all the furnaces, both at Port Adelaide and Newcastle, were in full work; 178 tons of copper have been shipped since the date of the last advices.

Port Phillip, ¾ to 1; during November 3315 tons of quartz were crushed, and 21 tons pyrites treated, the gold obtained amounting to 193 ozs. 7 dwts., or an average per ton of 4 dwts. 11½ grs. per ton. The profit amounted to 215*l.*, increasing the available balance to 1466*l.* Scottish Australian, 1⅜ to 1⅝; the sales of coal from the Lambton Colliery for October were 10,137 tons.

Van, 20 to 21, ex div.; there is no change advised since the monthly report, published last week. The mine is looking very well, and as soon as the necessary preparations are completed work will be resumed to cut the lode at the 90. Van Consols, 2 to 2½; the works are in full operation, the frost having entirely disappeared. Great West Van, ¾ to 1; Capt. Hodge reports that he expects to cut a productive lode in the cross-cut now being extended towards the main lode. Favourable indications have already appeared in the cross-cut, and the lode will be reached shortly, there being only a few fathoms further to drive. Pennerley, 1⅜ to 1½; the mine is looking much about the same, as will be seen from the report in another column. Potter's Pit portion of the mine is looking well. Bog, ¼ to ½; there is no alteration here. The end in the 75, on Whitestone lode, is equally as rich as hitherto reported. The prospects are most encouraging.

Penstruthal, 13s. to 15s.; fortnightly sales of tin have now been established, and good mine is being opened up. Cathedral, 17s. 6d. to 22s. 6d.; a satisfactory report was submitted at the meeting, details of which will appear next week. It is believed that a productive copper mine is being opened up.

Subjoined are the closing quotations:—

Bog, ¼ to ½; Carn Brea, 59 to 61; Devon Great Consols, 1¾ to 2⅛ prem.; Dolcoath, 50 to 51; East Wheal Lovell 7 to 7⅛; East Caradon, 1 to 1⅛; Great Laxey, 10⅛ to 11; Hingston Down, 1 to 1⅛; Marke Valley, 1 to 1⅛; Pennerley, 1¾ to 1⅞; Parys Mountain, 8s. to 10s.; Penstruthal, ⅝ to ¾; Roman Gravels, 12 to 12⅛; Tincroft, 29½ to 30⅛; Tankerville, 9¾ to 10; Van, 20 to 21, ex div.; Van Consols, 2 to 2⅛; West Chiverton, 1⅞ to 2⅛; West Tankerville, ⅝ to ⅞; West Basset, 7¾ to 8¼; Wheal Grenville, 5⅜ to 5⅝; Almada and Tirito, ⅝ to ⅞; Birdseye Creek, 3 to 3¼; Cedar Creek, 1⅜ to 1⅝; Cape Copper, 30⅛ to 31⅛; Chontales, ½ to ⅝; Colorado Terrible, 3¼ to 4; Don Pedro, ⅝ to ⅞ dis.; Eberhardt and Aurora, 4⅛ to 5⅛; Emma, 1 9-16 to 1 11-16; Flagstaff, 2⅝ to 2¾; Frontino and Bolivia, ¼ to ⅜; Gold Run, ¾ to 1; Independence, 2¼ to 3; Last Chance, 1 to 1¼; Malpaso, ⅛ to ¼; Malabar, ½ to ¾; New Quebrada, 2¾ to 3; Rica, ¼ to ⅜; Richmond Consolidated, 6⅞ to 7⅛; St. John del Rey, 260 to 265; Sweetland Creek, 2⅛ to 2¾; Sierra Buttes, 1¾ to 2; Tecoma, 1¼ to 1⅜; United Mexican, 2¾ to 3; South Aurora, 9-16 to 11-16; Blue Tent, 5 to 5¼.

COLLIERIES AND IRONWORKS.—The influence of the colliers' strike in South Wales as regards coal, and the crushing foreign competition with respect to iron, has been strongly felt during the week, business consisting chiefly of sales. The times are excellent for buyers of such shares did they but think so, but they apparently stand aloof in a great measure, and so prices recede. Bolckow Vaughan A, 54 to 55; Charles Cammell, 78 to 79; Britannia Iron, 30 to 35; Chilington Iron, 5¾ to 6¼; Henry Briggs, 24 to 25; Earle's Shipbuilding, 16½ to 17½; Milner's Safe, ¼ to ½ prem. (5*l.* paid); Original Hartlepool, 8 to 8½; Palmer's Shipbuilding, 25 to 26; Consett Iron, 24 to 24½; Midland Iron, 12 to 12½; Industrial Coal, 3½ to 3¾; Charlton Iron, 15 to 17; West Cumberland Iron, 11 to 12; Sheepbridge Coal, 82 to 83; Hopkins Gilkes, 6¼ to 7; Bilbao Iron, 41¼ to 42½; Staveley Coal A, 121¼ to 122½; Skerne Iron, 7 to 7½; Silkstone Fall, 1¼ to 1½; Albion Steel, 2 to 2¼; Phœnix Bessemer, 19 to 20. In anticipation of the meeting called at length for to-day (Friday) at the works, near Ludlow, the shares of Clee Hill have been offered, and remain very flat at ⅛ to ¼. Power will be sought by the directors to increase the capital by the issue of 4000 new shares of 1*l.* each, which, *inter alia*, are to enjoy a perferential dividend of 10 per cent.; they may be redeemed by the company at any time at 30s. each, and when the company is wound up they are to form a first charge on the assets after the usual creditors have been satisfied. It appears the company have suffered considerably from bad management; the first manager "spent a deal more money on the plant, and purchased a great many more stores, than were necessary on the scale which was then existing." Although the appointment of the second manager turned out to be an error, "Your directors could not arrive at any other decision than that their choice was fully justified by the strong recommendations tendered to them, though not, unfortunately, by the results." The present manager (also a director)—Capt. John Kitto—has promised to subscribe 250*l.* of the 4000*l.* now required, and "Your board will, of course, subscribe their proper proportion, but they do not feel called upon to provide all the funds, because they have had a great deal of unremunerative and thankless work and anxiety in looking after your interests." From the commencement of the company's working up to the end of November some 33,000 tons of coal and slack were raised, realising over 19,000*l.*; bricks realised about 200*l.*; and ironstone, 480*l.* It being found impossible to work profitably the Dhustone, or granite quarry; it was let at a royalty of 6d. per ton. The colliery appears to have been purchased by the company for 28,000*l.* Alltami, 5 to 5½; Bilson and Crump, 10¼ to 10¾; Cardiff and Swansea, 3¼ to 3¾; Newport Abercarn, 4 to 4⅛; New Sharlstone, 8 to 9; Thorp's Gawber, 14½ to 15½. Welsh Freehold have been enquired for, it appearing the company has succeeded in placing all the debentures needed; shares are 3 to 3¼.

The UNION RAILWAY CARRIAGE AND WAGON COMPANY, with a capital of 200,000*l.*, in shares of 20*l.* each, has been formed to purchase for 55,000*l.* the business and plant of Messrs. Whittle, Rushforth, and Co., of Chorley, Lancashire, who have carried on business at the Union Railway Wagon Works there since 1866. The business was taken over on Nov. 24, and the land included in the purchase comprises ¼ of an acre of freehold land, and over an acre of long leasehold. The works have been successfully carried on by the firm, are in full operation, and comprise wagon shops, sheds, drilling machines, shearing machines, steam-hammers, sawing, planing, and all necessary machinery for wagon and rolling stock building, driven by 12 steam-engines, all nearly new, in first-class condition, and are capable of turning out 50 wagons per week; there are also suitable offices, warehouses, workmen's cottages, stores, and railway sidings throughout the works in direct communication by railway with all parts of the kingdom. The stock in trade is to be taken at a fair valuation. Messrs. Whittle and Rushworth retain the management of affairs by taking the position of managing directors. The prospectus states that an important feature in the formation of this company will be the establishment of leasing operations in conjunction with the wagon building department, and the reason for converting this already flourishing concern into a public company is that these leasing operations require a larger working capital. The increasing demand for wagons on purchase and hiring leases is well known, and has been successfully carried out by the Midland, the Birmingham, the Gloucester, and other wagon companies. Wagon companies already established and well managed have been exceedingly successful, paying large and steady dividends to their shareholders, and at the same time forming considerable reserve funds. The works are substantially erected, and are situated in a most eligible position for making and repairing rolling stock, being in the centre of the Lancashire collieries and iron mines, and within easy access of the Durham, Yorkshire, Lincolnshire, Cleveland, Midland, and South Wales iron and coal fields. The prospectus will be found in another column.

The BRENTWOOD BRICK AND COAL COMPANY, with a capital of 25,000*l.*, in shares of 2*l.* each, has been formed to purchase and develope a property at Brentwood, in Essex. The prospectus, which will be found in another column, explains that the soil of the property, which is 23 acres in extent, consists of a valuable deposit of plastic clay, well adapted for the manufacture of bricks, tiles, pipes, &c., of superior quality. The property occupies a most favourable position on the main line of the Great Eastern Railway, with two sidings. These private sidings, running direct into the works, afford great facilities for loading and unloading in connection with the works. There is also by this means an excellent opportunity presented for the purchase of coals, chalk, &c. Sand of superior quality is already on the ground; ready access to the London market is also obtainable, where these bricks are in great demand. Many fields in this neighbourhood are exhausted, or closed, or have not equal facilities of transit. It is mentioned that the principal articles required to be mixed with clay for the purposes of making bricks are lime and sand, and from the report accompanying the prospectus it will be seen that not only is the chief material of a very superior quality, but the opportunities and advantages of easy access to the component parts are unusually great. It is a well-ascertained fact that bricks, as an article of commerce, are so much in demand that no thought of being able to glut the makret can be reasonably entertained, and consequently an article bearing qualities of an extraordinary description with respect to lightness, strength, and cheapness will take an unrivalled position. The company, it is calculated from practical data, will be enabled to manufacture a large quantity of tiles, also bricks at the rate of upwards of 20,000,000 per annum, and at a cost of about 20s. per thousand, which will realise at least 10 to 15 per cent. profit. The undertaking is considered to be absolutely free from anything of a speculative nature, and the directors call attention to the important fact that the shareholders at once enter into possession of an immediate dividend-paying property—there will be no waiting an indefinite period for returns, as the business is now in full working order, and capable of returning dividends from 10 to 20 per cent. on the capital invested, whilst 2 tons and upwards of coals would be supplied to shareholders in any part of London, at whatever the cost actually is to the company; thus a great advantage would be gained by subscribers, and all coals are thoroughly screened before leaving the depôt.

At the Truro Ticketing, on Thursday, 3468 tons of copper ore were sold, realising 17,108*l.* 10s. 6d. The particulars of the sale were—Average standard, 111*l.* 14s.; average produce, 6¼; average price per ton, 4*l.* 18s. 6d.; quantity of fine copper, 238 tons 10 cwts. The following are the particulars of the sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
Dec. 17..	2482	£112 6 0	6½	£4 13 0	14s. 1d.	£70 10 6
,, 31..	1062	108 19 0	7½	5 7 6	14 5	72 2 0
Jan. 21..	3468	111 14 0	6⅜	4 18 6	14 4	71 13 0

Compared with the last sale, the decline has been in the standard 15s., and in the price per ton of ore about 1s.

COAL MINING IN JAPAN.—We get some interesting information with reference to this subject from a foreign office report just published. One of the principal articles of trade at Nagasaki (Japan) is coal, and the mining is carried on pretty actively. Great expectations were formed as to the yield of the Takashima Mines, and those expectations have not been disappointed, inasmuch as there has been a large increase in the production of coal. In 1873, for instance, the yield of these mines was double that of the previous year. The greatest quantity is shipped to China, and it is mentioned that should these particular mines ever get exhausted the supply can be kept up from other mines in the neighbourhood. We learn, indeed, that the Island of Koyaki, at the mouth of the Nagasaki harbour, contains many seams of coal, which for a great many years have been worked intermittently by Japanese from the outcrops or surface by inclined drifts. The coal, it is pointed out, was carried up on men's backs in baskets, and the water was raised by means of bamboo pumps, or when in great quantity by water-wheels. It appears that there is one seam at Koyaki (good bituminous coal) of 5 ft. and another of 7 ft. thick, in addition to minor seams. Several of the mines on the island have been lately abandoned, in consequence of there not being proper appliances to work them. The coal having been all obtained from some distance from the outcrop, the raising of water and the maintenance of ventilation by the Japanese method being too difficult and expensive, it is expected that the output from these mines must decrease—that is, unless some improved European system of working is adopted. The next nearest point to Nagaski where coal is mined is in the Island of Matsushinia. In this island there are several good seams of coal, the most reliable of which is one 4 ft. thick, and which has been entirely worked out near its outcrop. Some time ago application was made to foreigners for capital and assistance, principally to work this seam of coal on a European method, but, unfortunately, the idea was never carried into effect, as the Government stopped the enterprise. Since then no steps have been taken for developing the mineral resources of the island. Another district where coals are found is Karatsu, on the mainland. The seams, however, rarely exceed 3 ft. in thickness, and the coals are of a more bituminous character. We further learn that samples of native ore have been brought into Nagaski by the natives—chiefly copper pyrites (containing in some cases as much as 30 per cent. of copper), stibine or antimony glance lead ore (galena), zinc-blende, to which may also be added plumbago. It is stated, however, that no dependence could be placed upon the regularity of the supply, although the opinion is expressed that were foreigners allowed to develope these mines the local trade would be greatly increased. The samples of ores have been derived from Higo Hinga, Isushima, and neighbouring districts; and, from the quantity of clay-ironstone found in the coal measures, it is thought that the district might be made an iron-smelting centre.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Jan. 15—	Minera	42	£15 10 0	Sheldon, Bush, & Co.
—	ditto	24	15 9 0	ditto
—	ditto	34	15 10 0	ditto
—	ditto	31	15 8 0	Nevill, Druce, & Co.
—	ditto	7	15 8 0	Panther Lead Company.
—	Great Laxey	100	24 17 6	Burry Port Smelting Co.
—	Nantiago	20	14 17 6	ditto
16—	Llanfyrnach	21	15 7 0	ditto
—	ditto	6	6 13 0	Nevill, Druce, and Co.
18—	Lisburne—Glogfawr	48	16 8 0	George Burr.
—	,, —Frongoch	40	15 5 0	Burry Port Smelting Co.
—	,, —Graigoch	18	14 2 0	George Burr.
20—	Dyllife	60	15 15 0	Walker, Parker, and Co.
21—	Tankerville	100	15 12 6	G. Burr.
—	Grogwinion	50	15 16 0	—

BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Jan. 15—	Minera	33	£ 3 15 6	Bagillt and Co.
—	ditto	20	3 15 6	Richardson and Co.
—	ditto	22	3 15 6	ditto
—	ditto	3½	3 5 6	Bagillt and Co.
—	ditto	3½	3 5 6	Richardson and Co.
—	ditto	3½	3 5 6	Vivian and Sons.
—	ditto	15	3 7 6	Bagillt Company.
18—	Talargoch	100	3 10 0	Villiers Spelter Co.
—	ditto	50	2 12 6	Richardson and Co.

BLACK TIN.

Date.	Mines.	Tons	c.	q.	lb.	Price per ton.	Amount.	Purchasers.
Jan. 7—	Rosewall Hill	11	6	3	7	£58 10 0	£ 663 8 6	—
16—	Pedn-an-drea	16	3	0	16	60 0 0	969 8 7	Carvedras.
—	Wheal Uny	12	1	0	8	59 19 6	698 16 1	Bissoe.
20—	Blue Hills	4	17	0	12	—	276 1 0	Daubuz.
—	Penhalls	6	4	3	8	60 0 0	374 9 3	ditto

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY

DISTRICT UNDER THE CHARGE OF J. P. BAKER, ESQ., H.M. INSPECTOR OF MINES.

PERSONS desirous of being EXAMINED in this district for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, should at once communicate with the Secretary to the Board of the above-mentioned District, at the following address.

By order of the Board,
WM. BLAKEMORE, Secretary,
Heathfield Villa, Wolverhampton.

BOROUGH OF (L.S.) SWANSEA.

TO CONTRACTORS.

THE BURIAL BOARD for the BOROUGH of SWANSEA are PREPARED to RECEIVE TENDERS for the DRAINAGE of the CEMETERY at DANYGRAIG.

Plans, specifications, and forms of tender may be seen at the offices of Mr. E. COUSINS, Engineer, Guildhall, Swansea.

Sealed tenders, marked "Tenders for Cemetery Drainage," to be delivered at the Clerk's Office, Guildhall, on or before Tuesday, the 2nd day of February next.

The Board will not hold themselves bound to accept the lowest or any tender.

RICHD. A. BSSERY, Town Clerk.

Guildhall, Swansea, 21st January, 1875.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867, AND OF THE WHEAL TREGOSS TIN MINING COMPANY (LIMITED).

NOTICE IS HEREBY GIVEN, that the WHEAL TREGOSS TIN MINING COMPANY (LIMITED), on the 7th day of January, 1875, duly passed a resolution to wind-up voluntarily, and APPOINTED Captain THOMAS PARKYN, of Roche, in the county of Cornwall, and Mr. THOMAS CRAPP, of St. Columb, in the county of Cornwall, LIQUIDATORS for the purpose of WINDING-UP the affairs of the company.

ALL PERSONS claiming to be CREDITORS of the said company are required, on or before the 20th day of February next, TO SEND IN THEIR NAMES AND ADDRESSES, and the AMOUNTS AND PARTICULARS OF THEIR SEVERAL CLAIMS, to the Undersigned, the Liquidators of the said company, at St. Columb, in the county of Cornwall.

THOMAS PARKYN.
Dated 20th January, 1875. THOMAS CRAPP.

LEAD DRESSING MACHINERY FOR SALE.

PATENT LEAD-DRESSING MACHINERY, with WATER-WHEEL, complete.

Also, ORE-CRUSHERS, with ELEVATOR and SEPARATORS.

The whole is in thorough working order, can be easily removed, and offers a good opportunity to any mining company to purchase their crushing and dressing machinery in One Lot.

For full particulars, address "Patentee," Messrs. Hepburn, 7, Pancras-lane, E.C.

COLORADO TERRIBLE LODE MINING COMPANY (LIMITED).

Notice is hereby given, that the directors of this company have THIS DAY DECLARED a DIVIDEND of FOUR SHILLINGS PER SHARE, payable on 10th February, upon all shares standing in the books of the company on 30th inst.

The Transfer-books will be closed from 1st to 6th February inclusive.

By order of the Board, F. ANDREWS, Secretary.

21, Great Winchester-street, E.C., London, 13th January, 1875.

FOR SALE, a 64-in. double-acting condensing PUMPING ENGINE, in first rate condition, and made by a well-known firm.

For particulars, apply to Mr. JOHN ARTHUR, Lorne-street, Chester.

ORES, &c.

I BUY at the highest prices:—
LEAD ORES.—LEAD-SILVER ORES.—SILVER-LEAD ORES.
SILVER-LEAD.—HARD LEAD.—ANTIMONIAL LEAD.
GOLD AND SILVER ORES.
ZINC AND LEAD ORES MIXED TOGETHER.
Particulars by letter.

ARMAND FALLIZE, Ingénieur, à Liége (Belgium)

SALT LAKE CITY, UTAH TERRITORY, U.S. AMERICA.

WILLIAM BREDEMEYER,

MINING AND CONSULTING ENGINEER,
U.S. MINERAL SURVEYOR.
Particular attention paid to Underground Surveys.
OFFICE,—KIMBALL BLOCK, SALT LAKE CITY.

D. ERNEST MELLISS, A.M., Ph.D.,

MINING ENGINEER AND GEOLOGIST,
52, BROADWAY, NEW YORK, UNITED STATES,

EXAMINES and REPORTS upon MINERAL and other LANDS, MINES, ORE BEDS, &c., either in or out of the United States.

Information furnished in regard to any of the American Mining Districts. Dr. MELLISS has had special experience in the Silver and Gold Mines west of the Rocky Mountains, and in the Coal and Iron Region of the Southern States.

Refers by permission to—W. BUTLER DUNCAN, Esq. (Duncan, Sherman, and Co.), New York; L. P. MORTON, Esq. (Morton, Bliss, and Co.), New York; MARK BRUMAGIM, Esq., President Mariposa Mining Company; JAMES B. HODGSKIN, Esq., Prest. U. S. Rolling Stock Company; CHARLES A. JOY, Ph.D., Prof. Chemistry, School of Mines, New York; FRIEDRICH WÖHLER, Ph.D., Prof. Chemistry, Univ. Göttingen; SARTORIUS v. WALTERSHAUSEN, Prof. Geol. and Min. Univ. Göttingen; WALTER WILLIAMS, Esq., Creswell Hall, Stafford, England; JOHN J. CISCO, Esq. (John J. Cisco and Son), New York; S. L. M. BARLOW, Esq., New York; C. P. HUNTINGTON, Esq., Prest. Chesapeake and Ohio Railway; CHARLES F. CHANDLER, Ph.D., Prest. New York Board of Health; J. A. NEWBERRY, M.D., Prof. Geology School of Mines, New York; RUDOLF FITTIG, Ph.D., Prof. Chemistry Univ. Tübingen, Würtemberg.

RICHARD P. ROTHWELL, C.E., M.E.,

MINING AND CIVIL ENGINEER,
27, PARK PLACE, NEW YORK.

Vice-President of the American Institute of Mining Engineers; Member of the American Society of Civil Engineers; of the North of England Institute of Mining Engineers; of the Geological Society of France, &c., &c.; Editor of the Engineering and Mining Journal, New York.

Reports on Mineral Properties, and on the Working and Management of Mines.

ADVISES AS TO THE VALUE OF AMERICAN MINING STOCKS AND INVESTMENTS.

A thorough technical education and long practical experience in Mining in various parts of Europe and America, enable Mr. ROTHWELL to give SAFE ADVICE; and his position as Editor of the leading Mining Paper of America affords him unusual facilities for knowing the ACTUAL VALUE of American Mining Securities and the standing of companies.

References: The Presiding Officers of the American Institute of Mining Engineers, and the American Society of Civil Engineers.

CAPPER PASS AND SON, BRISTOL

ARE PURCHASERS OF
ANTIMONIAL or HARD LEAD, LEAD MATTE, LEAD SLAGS, LEAD ASHES, SULPHATE OF LEAD, COPPER SLAGS, COPPER REGULUS or MATTE, TIN ASHES, and TIN SCRUFF.
MIXED METALS and DROSS, containing LEAD, COPPER, TIN, or ANTIMONY.

A. H. KENRICK,

ENGINEER,
MINING MACHINERY AND METALS,
13, RUMFORD STREET, LIVERPOOL.

Commission Agent for the Sale and Purchase of Mining and other Plant.

FOR SALE, a 22-in. PLATE and SHEET TRAIN, complete; a 65-in. PUMPING ENGINE; a 30-ft. WATER WHEEL; and a quantity of 9-in. PUMPS, &c.
WANTED, a quantity of 16 or 18 lbs. BRIDGE RAILS.

TYNE CAST MALLEABLE IRON COMPANY,

WORKS: TEAMS, GATESHEAD;
LONDON OFFICES: CHANDOS CHAMBERS, ADELPHI, W.C
MANUFACTURERS OF ALL DESCRIPTIONS OF
MALLEABLE IRON CASTINGS, delivered in London, carriage free.

LONGDEN'S LIST.

FOR SALE:—
HEMATITE SETT, DEVON.
TIN and COPPER SETT (good, and price very low).
CHINA-CLAY SETT (large, and fully equipped).

WANTED:—
PUDDLE IRON (in quantity).
ANTIMONY (a good sett; British or Foreign).
POTTER'S LEAD (in 10 ton quantities).

HENRY LONGDEN, MINING EXPERT,
18, COLEMAN STREET, LONDON, E.C.

"THE NASCENT COPPER PROCESS."

THE REFUSE of an OLD COPPER MINE has been FOUND on ASSAY to CONTAIN from 10 to 30 ozs. of SILVER to the ton of stuff. Deep adit level and water-power.

For full particulars, address "Silver," Williamson's Hotel, Bow-lane, Cheapside, London.

FOREMAN OF GUNPOWDER FACTORY.

WANTED, a THOROUGHLY COMPETENT MAN in this capacity. He must be strong, active, trustworthy, and practically acquainted with the Manufacture of Blasting Powder. One who has held such a situation preferred.

Replies, stating age and qualifications, in applicant's own hand-writing, and testimonials, to be addressed to "Gunpowder," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

TO MINING COMPANIES, ENGINEERS, &c.

WANTED, an APPOINTMENT, by a Young Man (25), as MANAGER'S or ENGINEER'S ASSISTANT, or to TAKE RESIDENT CHARGE of WORKS. Has had six years' experience in extensive deep iron mines, pumpwork, and general underground work, with machinery and steam power, together with the management of men. Good mechanical draughtsman and surveyor. References of the highest class as to character, ability, &c., and security if required.

Address, "M.E.," Watchet, Somersetshire.

WANTED, by the Advertiser, who has had considerable experience in Mining, an ENGAGEMENT as RESIDENT SECRETARY and ACCOUNTANT. Accustomed to dialling and mapping. Has some acquaintance with French and Spanish. Situation at home preferred. Good references.—Address, "M. E.," Post Office, Stroud Green, London.

WANTED, a SITUATION as MINE AGENT, to SUPERINTEND the WORKING DEPARTMENT of any SILVER, LEAD, COPPER, or IRON MINES, at home or abroad.

First-class testimonials from present employers extending over many years' services, and most satisfactory references, can be obtained by applying to "H. P.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

A GENTLEMAN, who has just finished a four years' course, in the University of Freiberg, on Metallurgy and Mining, WISHES to MEET with an ENGAGEMENT as MANAGER of either SMELTING or MINING WORKS. Would have no objection to take for a time the post of General Under Manager or Assayer. Can produce first-class certificates.

Apply "H.," 13, Mansell-street, Stratford-on-Avon.

MONEY.—£5000 to LEND for MINING PURPOSES, in sums of not less than £500, upon good and approved personal security, which must be undeniable.—For terms and conditions, apply to "Minerals," Messrs. Deacon and Co., 154, Leadenhall-street, E.C.

NEW FOWEY CONSOLS TIN MINE (LIMITED).

FOR SALE (being imperative), ONE HUNDRED SHARES in this MINE, at the very low price of 7s. 6d. (£3 fully paid up.) Captain Parkyn, of Roche, of 37 years' standing, recommends the shares as one of the best investments.—Applications received by Mr. BARTLETT, Sharebroker, 11, King William-street, City.

FOR SALE, a HORIZONTAL HIGH-PRESSURE ENGINE, 13¼ in. cylinder, 24 in. stroke; HORIZONTAL HIGH-PRESSURE ENGINE, 14 in. cylinder, 30 in. stroke; and a PAIR of GUN-METAL PUMPS, 6 in. diameter, 12 in. stroke; also, a TUBULAR BOILER, up to 60-horse power, of Yorkshire plates throughout.

Apply to W. T. HENDRY and Co., 2, Wilson street, London E.C.

Notices to Correspondents.

** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt; it then forms an accumulating useful work of reference.

ROCK-BORING MACHINERY.—In reply to your correspondent, "Mining Engineer," in last week's Journal, I should be much obliged if you would ask him to put himself in communication with me. The Diamond Rock Boring Company undertake to drive levels at a fixed price, and with a premium for speed, an arrangement the nature of which, I apprehend, is in accordance with your correspondent's requirements.—E. J. HONY CHURCH, Sec.: *Westminster Chambers.*

REGISTERED OFFICES.—"J. B." (Chard).—The address of the Bampfylde Copper Mining Company is 2, Brunswick-street, Liverpool.

"J. N. K." writes that in April last he sent to the secretary of a company in which he is interested a certificate of shares which he holds therein, and a transfer form for part of them, and complains that although he has frequently written both to the secretary and Chairman he can obtain neither the certificate, the transfer, nor even any explanation of such conduct. Can any correspondent state what is the best course to pursue in the matter?

THE SUPPLEMENTARY SHEET.—We have received occasional complaints, and of late a good many, that the Journal is delivered by country booksellers without the Supplement. Subscribers would oblige us by demanding that the paper should be handed to them complete, as every Journal is accompanied by the Supplement when it leaves our office, and the fault of omission must rest with the country bookseller or their London agent.

Received,—"M. E. D." (New York)—"J. C." (Bridgend)—"A. A."—R. J. Crickmer—"R. B." (New York)—"Shareholder" (Wheal Crebor)—"Shareholder" (Lovell)—"B. M."—"Constant Reader" (Bangor)—"Inventor" (Leeds): We should like to have a description of the invention—"One Interested" (Cleo Hill Colliery): The meeting was held yesterday at the colliery, and a full report of the proceedings will appear in next week's Journal—"Victim" (St. Dennis Consols)—"N. W."—"Shareholder" (Tyllwyd)—"F. G. S.:" Next week.

SCALE FOR ADVERTISEMENTS.—Our charge for general advertisements is—for six lines and under, 4s.; per line afterwards, 8d. Average, 12 words per line.

THE MINING JOURNAL,
Railway and Commercial Gazette.

LONDON, JANUARY 23, 1875.

THE PRESENT CONDITION OF THE COKE MANUFACTURE.

In view of the rapid extension of our metallurgical industry, and the consequently increased demand for coke, it becomes important to consider how far that particular branch of manufacture can be economised and improved. Next to the production of pig-iron itself, the production of coke suited for smelting purposes has become an industry of great value and magnitude, and the one is certain to keep pace with the growth of the other. In 1870 no less than 40·1 per cent. of the 16,075,000 tons of coal raised in the South Durham coal field were absorbed in iron making, and in 1872 fully 47·2 per cent. of the 17,395,000 tons of coal produced was used in the same manufacture, while iron making took no less than 65·2 per cent. of the coal raised by the largest coal-producing firm in the county—that of JOSEPH PEASE and PARTNERS. A perusal of the statistics available on this matter leads us to the conclusion that the demand for fuel for metallurgical purposes is increasing in a greater ratio than the demand from any other source. Competition is at the same time being more and more stimulated, and what with this and the low and lowering value obtainable for all kinds of fuel, it is well worth considering the prospects of the future.

The growth of the coke trade forms one of the most remarkable chapters in the annals of modern industry. It is calculated that in 1806 there were only 170,000 tons of pig-metal made by coke, charcoal being even at that time extensively used. The following figures will exhibit the growth of the trade since that time:—Made solely by coke, in the year 1820, 400,000 tons; in 1826, 600,000 tons; in 1845, 1,250,000 tons; in 1851, 2,500,000 tons; in 1858, 3,456,864 tons; in 1868, 4,000,000 tons; and in 1872, 6,710,000 tons. There are at the present time only five charcoal furnaces in the United Kingdom. These are the Newland furnace and the Backbarrow furnace, near Barrow-in-Furness, the Duddon furnace in Cumberland, the Bonaire furnace in Argyleshire, and the Warsach furnace in Hampshire. Only three of these furnaces are now being worked, so that for all practical purposes it may be said that the use of charcoal for smelting has been discontinued in this country.

There were no specific figures relating to the coke trade published either in the reports of the Mine Inspectors or in the Memoirs of the Geological Survey. This is a fact rather to be regretted, seeing that the manufacture of coke is a distinct branch of industry, differing from any other phase of the coal trade in so far as it gives employment to a large capital and a large number of workmen. It was calculated in 1860 by a highly competent authority that there were 5,000,000 tons of coke produced annually in Great Britain, giving employment to over 4000 hands, and that the capital embarked in this branch of manufacture was over 500,000*l*. Since that time, however, progress has been made to an extent that will probably more than double these figures. The production of pig-iron, in which coke is chiefly used, rose from 3,826,752 tons in 1860 to over 7,000,000 tons last year, and the demand for coke must have increased in a corresponding ratio. In South Durham alone the production of coke has advanced from less than 500,000 tons to over 4,500,000 tons within 20 years; and, judging from the present aspect of the iron trade of Cleveland (in which nearly 3,000,000 tons of coke are now annually absorbed), the increase is likely to be maintained.

It is of some importance to ascertain whether by an economy in the production of coke it will be possible so far to reduce its cost as to enable Cleveland in the future, as she has done in the past, to produce the cheapest pig-iron in the world. If the truth must be told, we are afraid that very little progress has been made of late years in this direction. The Belgians are undoubtedly taking the wind out of our sails in this matter. They have adopted the Appolt, the Coppée, and other new ovens, by means of which a great economy is obtained, and hence we find that the production of coke advanced in Belgium from 1,314,915 tons in 1871 to 1,838,096 tons in 1873. It cannot, however, be said that our coke manufacturers have been quite idle in the pursuit of further improvements. Messrs. ROGERS and MACKWORTH patented in 1856 a coke kiln, with a sound concrete bottom, about 18 in. thick, to guard against the access of air. By an arrangement of flues in the side walls, and of large coals at the bottom when loaded, a powerful draught was created in the vertical flues, so that the atmospheric air was drawn down through the top of the kiln to the seat of combustion beneath. A 50-ton kiln was filled to a depth of 4 ft. 6 in., and covered with a layer of dead ashes 2 or 3 in. thick. The fire was applied to the horizontal bottom flues, and the process gradually ascended. Ovens of this class are still used in South Wales, although not to any large extent elsewhere. In the North of England ovens constructed on the principle patented by Messrs. BRECON and DIXON are used by the Messrs. PEASE and other large firms, and yield good results.

The Appolt oven was tried some three or four years ago by Mr. I. L. BELL and his partners; but although they proved the possibility of effecting a considerable economy in the process of manufacture, they yielded a deteriorated quality of coke, and were on that account abandoned. Other forms and combinations of ovens are now being experimented with, but it may be said roughly that not one-third of the 13,000 or 14,000 ovens now at work in the county of Durham are any different from the old-fashioned beehive of 30 or 40 years ago. There may be many reasons for sticking to this old system. The beehive coke oven, like the ordinary reverberatory puddling furnace, is easily understood, produces tolerably regular results, and is not expensive as regards first cost. The following estimate of the outlay for a coke oven, based on the cost of a plant of 200 ovens, was made in 1860 by a mining engineer in the North of England:—Building and materials, 10½-ft. oven, 23*l*. 19s. 7d.; with flues and chimneys, 4*l*. 0s. 7d.; laying on necessary water supply, 1*l*. 8s. 11d.; gangways and turntables, 1*l*. 3s. 10d.; working gear, 5s. 4d.: total outlay per oven, 30*l*. 18s. 3d. Since that time the cost of all kinds of raw material and of labour have nearly doubled—in some cases they have more than doubled—so that the cost per oven will not now be much short of 50*l*. The same remark applies to the cost of manufacturing coke, which was estimated at the same time to be as follows:—Loading ovens, 10 ft. 6 in. diameter, 1·29d.; levelling, 0·87d.; plastering oven doors, 0·23d.; drawing (including cooling by hose), 5·12d.; filling into wagons, 2·67d.; filling ballast, 0·08d.; filling coals out of heap (when necessary), 0·16d.; labourage (general), 0·35d.; burning (by overlooker or contractor), 0·42d.; hose and delivery pipes (upholding), 0·17d.: blacksmiths' labour, 0·23d.; plate laying and ditto, 0·29d.; joiners ditto, 0·05d.; inspection, 0·13d. wagon haulage (by horses), 1·20d.: total, 1s. 1·26d. Upholding ovens (labour), 0·75d.; materials, stores, &c., 2·08d.: total cost of manufacture, exclusive of takes, &c., and redemption of capital, 1s. 4·09d.

It is now generally admitted that it is not possible to produce coke for much less than double this amount. The conditions of the manufacture have changed in everything, and it is calculated that coke cannot be produced at the present time for less than double its cost of production five or six years ago. With the single exception, probably, of the puddling process, the process of manufacturing coke is one of the most notoriously wasteful of modern times. It has been computed by Mr. I. L. BELL and others that the waste or loss should not exceed 5 per cent., while it is now over 15 per cent. There are, as we have indicated, proved methods of getting rid of this waste, but their application is not compatible, so far as experience has hitherto gone, with maintaining the quality of the yield. It is now asserted, however, that by the use of the Coppée oven there is not only, in comparison with the beehive oven, a saving of 19*l*. 7s. per oven in first cost, but in a manufacture of 1000 tons of coal per week there is an aggregate annual saving of 5000*l*. Should this calculation be verified by results we shall be justified in assuming that by the universal adoption of the Coppée oven in this country an economy of at least 1,500,000*l*. sterling per annum may be realised. The Coppée oven has not yet made much progress in this country, and we are not aware of a single case in which it has been adopted in the South Durham coal field, but the superiority of the system has already been so far attested that the coal trade might do well in their own interest to appoint a commission to investigate and report upon the suitability of this or one of the numerous other patent ovens now recommended to the requirements of the different kinds and qualities of coal from which coke is produced.

There are other economies yet to be accomplished in connection with the manufacture of coke in our great northern coal field. It is well known that there is a large quantity of ammonia generated in making coke, but no general utilisation of this valuable product has yet been effected. Experiments were made so far back as the summer of 1860 at PEASE'S West Collieries to collect the ammonia from the gases as they were driven off from the coal by the heat of the coke-oven. The chief difficulty then arose from having to distil the coal in the coke-oven at a low temperature, in order to prevent the ammonia from being volatilised through the ignition of the hydrogen gas. After continuing the distillation in this manner for about 14 hours it was found that only a small quantity of ammonia had been obtained, and the heat that was necessary to penetrate any considerable quantity of coal so as to make it give off ammonia was such as to completely volatilise it as it rose to the surface of the coal in the oven. It was, therefore, concluded at the time that the ammonia which escapes from coal in the process of coking could not be collected with any commercial advantage in conjunction with the present method of manufacturing coke. More recently Messrs. BELL BROTHERS, of the Clarence Ironworks, Middlesborough, attempted by experiments on a larger scale to utilise the ammonia and tar distilled in coke making. They erected a plant of 36 ovens, of various sizes, and with large doors, so that the air could be excluded, forming, in fact, a large retort, in which the escaping gases passed out by a large metal pipe let into the dome of the oven, and then through a long range of metal pipes into the condensers. These condensers consisted of a large series of iron pipes, 15 in each block, 40 ft. in length, and 1 ft. 9 in. in diameter; together with a large column, filled with coke, 13 ft. high by 4 ft. diameter at one end of the range. Below these two sets of condensers there were 41 tar wells, each 14 ft. 7½ in. long by 10 ft. wide, and 12 ft. deep inside. The inflammable gas, after depositing the tar, water, and ammonia, returned by a second range of large pipes to the second block of ovens, and was there distributed.

Although the experiments carried out by Messrs. BELL BROTHERS were not so successful as to lead to the general adoption of this system, they clearly demonstrated the possibility of taking off the 1·5 per cent. of ammonia contained in coal with adequate commercial results. This, then, is another direction in which progress must be made in the future.

RAILWAY IRON—AMERICAN RAILROADS.

That the American demand for our railway iron was very languid last year is abundantly proved by the fact that while we forwarded to our American friends and customers 467,304 tons in 1872 and 186,300 tons in 1873, we only sent the great Transatlantic Republic 94,467 tons in 1874. The American demand may be said, indeed, to have almost altogether collapsed for a time, since in December we only shipped 1021 tons of our railway iron to the United States, or at the rate of about 12,000 tons per annum. The remarkable contraction observable in the American demand last year was attributable partly, although not entirely, to the depression of the American railroad interest, in consequence of the financial difficulties which commenced to make their adverse influence felt in the United States in September, 1873, and which have not yet wholly passed away. Thus the total extent of new railroad completed in the United States last year did not exceed 1803 miles. This total compares as follows with the corresponding mileage constructed annually in the Great Republic in the previous 19 years:—

Year.	Miles.	Year.	Miles.
1855	1853	1865	909
1856	3374	1866	1545
1857	2465	1867	1926
1858	1665	1868	3450
1859	2016	1869	6588
1860	1822	1870	6675
1861	1176	1871	7112
1862	702	1872	6511
1863	1389	1873	5245
1864	582	1874	1803

The figures illustrating the extent of new railroad constructed in the United States in 1874 undoubtedly show a very great contraction in the development of the railroad system of the United States last year; but we cannot altogether accept it as conclusively or fully explaining the great falling off observable last year in the demand for our railway iron among the Americans. It is true that the extent of new line opened out in the United States last year was little more than one-third the corresponding mileage completed in 1873; but, on the other hand, there was a very large outlay in the United States last year in the improvement of existing American railroads. Thus the whole outlay of capital made in the United States in 1874, in the construction of new railroads and the improvement of old ones was computed at $202,513,391. About two-thirds of this sum is supposed to have been expended on new works; and the remainder in the improvement of the tracks, equipment, buildings, &c. Most of the great roads have largely re-laid their tracks with steel rails. The result is that American railroads are no longer such cheap affairs as they once were, their average cost having been carried at the close of 1874 to $43,630 per mile. When we take account of the large additional outlay made in 1874 in the improvement of the American railroad system as it was previously existing, we are forced to the conclusion that the growth of American metallurgical industry is, after all, the great cause of the collapse of the American demand for our railway iron. When we find that the outlay of capital in one way or another upon the railroads of the United States amounted in 1874 to $202,513,391, or at least 40,000,000*l*. sterling, and that in the same year our exports of railway material to the Americans were little more than one-fifth what they were in 1872, can we entertain any reasonable doubt that our rails and accessories were last year found to be too dear on the American markets, and that they were edged out of the way, to some extent, by rival American products? If this is the case, the circumstance is obviously one of great gravity. Our leading ironmasters and iron-making companies have evidently been close observers of what has been taking place across the Atlantic, and they have clearly resolved to secure a return of the cheap production which raised the British iron trade to such pre-eminence in a by no means remote past. A firm stand against the delegates, the Trades Unions, and all the agencies which have stirred up discontent among English ironworkers during the last two years has clearly become necessary, even in the interest of the ironworkers themselves, as otherwise our foreign iron connection generally may very possibly share the fate of the American demand, and shrivel up into comparative insignificance.

THE DIAMOND SWINDLE LIBEL CASE.

An admirable epitome of the now celebrated libel case, arising out of the exposure by the *Times* of the so-called Colorado Diamond Swindle, is given in another column of to-day's Journal, in an abstract of the very lucid summing up of the Lord Chief Baron of the Court of Exchequer, and the verdict is one which the public generally will regard as a thoroughly equitable one; by it the plaintiff recovers damages from one defendant for 500*l*., but as he is himself liable for the costs of the other defendant, which will probably amount to much more than that sum, few will contend that the jury have been over lenient with the plaintiff; whilst the defendant condemned to pay the 500*l*. may congratulate himself that, whatever the inferences may be, he has at least escaped the dishonour of being proven, to the satisfaction of a jury, guilty of prostituting the newspaper for personal pecuniary considerations. That the pretended diamond fields were really "salted" preparatory to the perpetration of a gigantic fraud upon the capitalists of England and America is not disputed, and that Mr. SAMPSON'S notices in the *Times* City Article were the means of preventing the project being carried out is equally beyond dispute, but in imputing guilty knowledge of the fraud to Mr. RUBERY, whom the jury had declared to be legally innocent, an error in judgment was committed by Mr. SAMPSON in writing and by the *Times* in publishing the statement; and, as the *Times* very truly remarks, "The verdict for 500*l*. implies a conviction that fraud was imputed without sufficient warrant," but that they are not without consolation though the verdict is against them. "What would have happened," the *Times* very naturally asks, "if this diamond discovery had passed unchallenged? It is admitted that it was a swindle, and had it not been exposed hundreds of simple and innocent Englishmen and Englishwomen would have been deluded and defrauded by it, as the jury held that Mr. RUBERY was deluded. The balance of benefit is entirely in favour of the course we pursued. Mr. RUBERY receives compensation for the injury done to his reputation, and if this costs us something we have the satisfaction of thinking that we have saved a crowd of honest and credulous folk a very much larger sum which they would have lost. The articles, the responsibility of which we accept, do us no dishonour."

With the exception of mentioning an individual in connection with a projected fraud, nothing was written or published which would have afforded ground of complaint, and the verdict can only be regarded as entirely exonerating the *Times* from all blame in the matter; indeed, it is probably to the conviction that the conductors of the *Times* were innocent of the existence of any understanding between the two defendants that one of them was given a verdict, and that the most lenient view of their monetary transactions was accepted. For much of the information published the conductors of newspapers are necessarily dependent upon correspondents, and it is frequently impossible to verify the statements made, and this fact is recognised by courts of law by the awarding of mere nominal damages where there is absence of malice on the part of those connected with the Press. Even in the present case it is very probable that no damages would have been given had there been any attempt made to show that Mr. SAMPSON had no personal feeling against Mr. RUBERY, and there had been no insufficiently explained monetary transactions between the two defendants. These circumstances will also account for the action having been brought against individuals in their private capacity, and not against the *Times*. Had the opposite course been taken, and the *Times* made defendant in the matter, the plea of justification as regards the general statement, and willingness to apologise as regards Mr. RUBERY, would have satisfied any court and any jury. In existing circumstances even Mr. RUBERY may wish that the proceedings had never been commenced; whilst the *Times* suffers nothing in honour or integrity from the disclosures made, and has derived the incalculable benefit of ascertaining the probable existence of an abuse of confidence which it will well know how to prevent for the future.

UTILISATION OF SMALL COAL—THE DIAMOND FUEL COMPANY.

For some years past the manufacture of patent fuel has been constantly increasing, and the exorbitant prices which ruled a short time since had the effect of attracting still greater attention to the importance of turning every particle of coal to good account. The Diamond Fuel Company appear to have done their utmost to profit by this state of affairs, and their works at Belvedere appear to be admirably arranged for doing a very extensive business. The number of patents from time to time secured for agglomerating coal dust has been very large, and enough has been done by several inventors to prove that there is a large field for profitable enterprise, although the perfection which each has aimed at has not, perhaps, been even yet attained. Wylam's fuel, which was produced by moulding into bricks a mixture of small coal and pitch, the agglomeration being facilitated by passing the mass, after being ground fine, through a cylindrical retort containing an archimedean screw to press the mixture forward to the moulding machine was largely used, although it was slightly objectionable on account of the large quantity of smoke given off; and this inconvenience was not entirely removed by Warlich, who added a little common salt or alum as a remedy. Wood prepared his fuel by mixing small coke or coal in a heated state with tar or pitch in a common pug-mill, the subsequent portion of the process consisting merely of moulding the mass into bricks by the best available machinery. Bessemer merely raised the temperature of coal-dust to such an extent that the softened mass could be moulded into a firm block by pressure alone. Grant's patent was not widely different from those of Wylam, Warlich, and Wood, but he proposed to whitewash the finished blocks to prevent their sticking together either in the coal bunkers or in hot climates, but the whitewashed coal does not seem to have come largely into use.

The Diamond Fuel Company have adopted the patents of Mr. D. Barker, and from the character of the blocks now on the trucks ready for shipment at the Belvedere Works they appear to have hit upon the method of producing a really sound fuel at a price which permits of its sale in the Thames at a far lower price than round coal, whilst leaving a good profit to the shareholders. The works, which are many acres in extent, and held on a 90-years lease at a very reasonable rent, have a river frontage of some 500 ft., at one end of which, with 20 ft. of water at high tide, an ample stage has been erected, with four lines of tramway, travelling crane, wagons, and travelling hoppers for the landing of the coal dust in the cheapest possible manner, and transporting it to the agglomerating machinery, whilst equally complete arrangements have been made in the shape of inclined plane, tramways, and jetty for the ready shipment of the finished fuel at the other end of the river frontage. It is estimated by Mr. Glover, the company's resident manager, who appears in every respect fitted for the post he occupies, that with the exception of additional mixing and moulding machinery they have every facility for turning out 1000 tons of fuel per day, and as it necessarily follows that the larger the make the larger the company's profits, owing to the fixed charges remaining nearly the same, it is to be hoped that no time will be lost in arranging for the larger output.

From the rapidity with which the coal dust can be agglomerated a cargo could be transferred direct from the ship to the machinery. The process itself may be conveniently described as consisting of three parts—the preparation, the mixing, and the moulding, whilst the essential feature of the patents owned by the company is the use of farina in combination with the other materials for the purpose of agglomeration. By way of preparation, the small coal is un-

loaded from the vessel and passed into hoppers under the tramway, thence through a Carr's disintegrator, and at the same time the mucilage is in course of preparation in a series of boilers on the other side of the machine shed, and from which pipes are laid underground to the tanks near the machine. Elevators are provided for raising the coal which has passed the disintegrator, and the mucilage from the tanks, and delivering them into a pug-mill, the lower end of which is in direct communication with a moulding machine, constructed on the bottom-pressure system, which has long been very successfully used in France. During part of the revolution of the mould frame the mixture as it leaves the pug-mill is compressed, and the blocks being perfect pass beyond the region of compression, and are forced up by the bottom end of the plunger ascending an inclined plane. The finished blocks, raised to the surface of the mould frame, are at the proper moment pushed by a movable arm from the machine on to an endless apron, from which two men load them into trucks. When necessary the finished blocks can be delivered at the ship's side within an hour from the time the coal dust is thrown into the disintegrator. The blocks are handsome in appearance, and the machine is considered capable of turning out about 100 tons per day.

With regard to the profit realisable by the shareholders, it appears to be almost entirely dependent upon the difference between the value of round coal and slack of any given denomination. Thus South Hetton round coal is worth about 26s. per ton in the Pool, and the Diamond Fuel Company purchase the slack of this same South Hetton coal, f.o.b. at Sunderland, for 5s. per ton. The freight thence to the works at Belvedere is 6s. 9d., which, with City dues (1s. 1d.) and cost of unloading, brings up the price of the clean coal dust free on the company's landing-stage to about 13s. 6d. per ton, and adding thereto 2s. 6d. per ton, the cost of agglomeration, the company have the fuel ready for delivery at 16s. per ton. The average price of the mucilage is 30s. per ton, and 2 cwts., or 3s. worth, is used for each ton of fuel produced; but 1s. 6d. per ton is recovered in the shape of increased weight of fuel, the mucilage being merely a liquid fuel of great evaporative power. The selling price is 21s. per ton, leaving a clear profit of 5s. upon every ton sold. At the present moment the retail consumer is paying 34s. per ton for the South Hetton round coal, so that admitting the Diamond fuel to be equally good, it cannot fail to command a ready sale. The company have doubtless had annoying delays, but they are only such as may be regarded as inseparable from new enterpises; so that although the report to be presented at the forthcoming meeting is not so satisfactory as could be desired, all important obstacles seem now to have been overcome. As to the report and balance-sheet, the directors are conscious that at first some disappointment may be experienced at the facts and figures presented, but it is believed that this feeling will be in a great measure modified, if not altogether allayed, when necessary explanations have been given and received.

Exceptional difficulties have delayed the completion of the works themselves considerably beyond the date contemplated, and thus the actual business of the company—the manufacture and sale of fuel—has been greatly retarded, and was for a certain period entirely stopped. On Tuesday, however, the French machine was in full working order and running well; and Mr. Glover stated that the other machine—Mr. Barker's invention—in which the mixture is effected in a tubular mixer, and the fuel formed by forcing the mass through rectangular orifices and then cutting it into blocks, would be at work the following day, so that by the time the meeting is held they ought to be making 150 tons per day regularly. The directors very truly say that the works have been constructed in a very solid and substantial manner, and that the plant, machinery, engines, &c., are of the best description. There is a pair of good 22-inch cylinder engines, with suitable house and boiler accommodation, a well built stack, and all that is necessary for the carrying on of a large trade. The directors remark as to the fuel itself there can be no question whatever respecting its value as an article of commerce, but owing to the hitherto unfinished state of the works they have been unable to push the sale of the fuel. They are now, however, ready to take contracts, so that with this, and the development of the foreign patents, the shareholders may reasonably look for dividends at no distant date.

BIRMINGHAM, AND ITS NEW COAL FIELD.—We have often drawn the attention of our readers to the very successful search for coal beneath the Permians at Sandwell Park, and now a further development nearer Birmingham is in prospect. We believe that a lease has been obtained from Lord Calthorpe of upwards of 1500 acres of the Perry Hall estate, by Messrs. S. and J. Bailey, mining engineers, of Walsall, and a company is about to be formed. The situation of the estate is unrivalled, being intersected by railway and canal; and by road is within 2½ miles of Birmingham Town Hall, the centre of a population of 400,000, using 3000 to 4000 tons of coal per day in their homes and manufactories. With the Thick coal within this distance, the inhabitants of this Midland metropolis need not experience the alarm of a coal famine so recently prevailing through frozen canals and glutted railways. We wish the enterprise every success.

THRAPSTON IRON ORE COMPANY.—Since the formation of this company, which has been registered during the past week, the directors have contracted for an additional plot of 50 acres at Ditchford, to work along with the Thrapston property, and they are negociating for a further plot of about 50 acres. A siding is now in course of construction at Ditchford, near Wellingborough, and when this is completed it is anticipated the company will be able to put from 2000 to 3000 tons of stone into the market weekly, and the directors have it in contemplation to erect blast-furnaces upon a portion of the property. The ores have been tested with satisfactory results, those from the Thrapston property giving 45 per cent. metallic iron, and those from Ditchford 51 per cent.

PRUSSIAN MINING AND IRONWORKS COMPANY.—The direction of the Preussische Bergwerks und Hütten-Actien-Gesellschaft has forwarded to the shareholders a memorandum reminding them that in the advertisement (published in the *Mining Journal* of Dec. 19) with reference to the shares of the new issue, the holders of the present shares have right of preference up to Jan. 15 to the new issue of 7500 shares, each 12 of the old shares giving a right to subscribe for five of the new; and when less than 12 are held, then each three old shares giving a right to one new share. It was stated at the general meeting, on Dec. 12, that out of the second emission of obligations of the company 7500 partial obligations of 200 thalers each, numbered 2501 to 10,000, were not yet placed; the council of supervision intending to offer out of these 7500 partial obligations, a number equal to that of the new shares of the emission then decided upon, which might not be taken up by the shareholders, for sale at the course of 85 per cent. with current interest at 5 per cent. The general meeting approved of the proposition of the council of supervision to the effect that the direction should be empowered and bound at any time during the period up to June 30, 1877, to purchase back from the holders of the obligations of second emission numbered 2501 to 10,000, those obligations at the course of 85 per cent., with running interest at 5 per cent. in case the seller shall at the same time purchase from the company at par an equal nominal amount of shares of the new emission then decided upon. As the period allowed for exercising the right of option to take shares of the new emission expired on Jan. 15, and the direction are thus in a position to know what number of the partial obligations can be offered under the above-mentioned conditions, the shareholders are reminded that in the appropriation of those obligations a preference will also be given to the holders of shares of the company up to Jan. 31. Upon application made personally or by letter to the office here in Düsseldorf within the time above mentioned each shareholder, in so far as he shall not have made use of his right of preference to the new shares, is entitled to claim a number of partial obligations on these conditions, equal to the number of new shares which he was entitled to claim according to the advertisement of Dec. 14, and if he should wish to have a larger number allotted, his application for such additional number will be entertained in preference to that of parties who are not holders of shares. After Jan. 31 any of the available obligations which shall not have been applied for by shareholders will be offered unreservedly, under the same conditions, to other parties.

ARSENIC IN RIVERS.—Mr. Stephen H. Emmens writes under date 8, Old Jewry, Jan. 18:—"As one among, perhaps, the largest manufacturers of arsenic in the kingdom I can quite confirm the necessity, on which Dr. Frankland insists, for State supervision. Speaking for myself, as well as for the West of England Chymical Company, whose works are under my direction, we shall cheerfully welcome such supervision; and seeing that the chymical treatment of arsenical pyrites is so remunerative a business, and partakes so much of the nature of a monopoly, there is no doubt that the Devon Great Consols, the New Great Consols, and the two or three other establishments engaged in the trade, would willingly join in the adoption of any preventive measures that might be recommended by a Government officer. Dr. Le Neve Foster, the Government Inspector of Metalliferous Mines for Devon and Cornwall, might fairly be asked to undertake the supervision of the manufacture of arsenic in this country, as, with the exception of a trifling quantity produced in South Wales, the industry in question is confined to Cornwall. The rapidity with which the use of arsenic in the arts is extending certainly lends additional importance to the question of early legislation on the subject."

COAL AND IRON IN THE UNITED STATES.—In consequence of the increased use of steel rails the average cost of the 76,206 miles of railroad completed in the United States at the close of 1874 had risen to $43,630 per mile. The Youngstown Ohio Rolling-Mill has been running double time during the past year, except when stopped for necessary repairs. A new rolling-mill, at Massillon, Ohio, started with the new year. The Hampshire and Baltimore Coal Company has declared a dividend of 3 per cent. The Southern Pacific Railroad Company hopes eventually to profit from the discovery of extensive deposits of coal in close proximity to the line of its road. The company's system has, however, not yet been completed to the points at which these deposits occur. The movement of coal and coke over the Pennsylvania Railroad last year was 3,305,157 tons.

REPORT FROM CORNWALL.

Jan. 21.—The weather still continues very rainy, and there seems to be no immediate prospect of the mines being relieved from their exceptionally heavy water burdens, which must, while they continue, have an important effect in reducing the produce of ores, as much of the best tin ground in some of the mines is under water. For this there is no remedy but patience. The season is one of the wettest that has been known for many years.

Another unfortunate illustration has been supplied of the way in which carelessness leads to the loss of life. Three lads employed at West Frances Mine persisted in going underground in a skip, contrary to the rules of the mine, and in spite of the warnings of the lander. They were going to the 130 fm. level, which they believe to be dry. The water, however, had been gaining since they were there previously, and consequently there were 4 or 5 ft. of water over the plat. Into this the three lads suddenly plunged, their lights being put out. Two could swim, and escaped. The third could not swim, and was drowned. Cornish mining is fatal enough from causes which must be deemed unavoidable, without the loss of life being increased from causes such as this. But the recklessness of both boys and men is almost proverbial. The lander, who was one of the witnesses called at the inquest, stated that not long since when he tried to stop a man from going down in the skip he was threatened to be thrown down the shaft. Of course, under such circumstances as this not much could be expected of the lander beyond warning. There are rules at West Frances against descending in the skip, and fines are supposed to be inflicted for any breach of them. It does not appear, however, that these fines have ever been levied. What is needed, evidently, is greater strictness on the part of the agents, who should see that the men in charge of these matters are properly supported in carrying out their duty.

Partly as a result of the diabolical attempt at arsenic poisoning at Gunnislake, we are not unlikely to see some litigation affecting the manufacture of arsenic. Hitherto there has been gross carelessness in this matter. There has been a marvellous amount of care taken concerning the sale of grains and drachms of arsenic, and all the while at many a mine it would be carried off by the bucketful, and no one the wiser. We have heard of a case in which a cart laden with loose arsenic was left unprotected on a farm for a week; and it has been a common thing for it to be carried to the Tamar for shipment in open carts. We do not mean to say that this has been universally the case, but it has been so far too often, and something really is needed. A good deal of astonishment and alarm have been expressed in London and elsewhere by the statement in the *Times* and other papers, vouched for by Dr. Frankland, that at Devon Great Consols, which has the largest arsenic works in the world, there should be enough arsenic manufactured weekly to kill 500,000,000 human beings, or about one-half of the existing human race, and enough in a year to kill every living thing on the face of the earth. The surprise is natural, but the alarm is groundless. It is nothing new that arsenic should be manufactured in large quantities, though certainly the production has largely increased; but there is no danger beyond the immediate locality, and that a little litigation will soon remove.

REPORT FROM SCOTLAND.

Jan. 20.—The tone of the Warrant Market has been dull throughout the past week, and a pretty general reduction has taken place in all descriptions of pig-iron. On Friday the price of warrants was 73s. 6d.; on Monday as low as 72s. 6d. was reached, and yesterday, after business, down to 72s., the closing price was buyers 72s. 6d. To-day there has been a firmer tone about the market, and a good business (about 10,000 tons) was done in warrants from 72s. 9d. to 73s. 3d. cash, closing with buyers remaining.

	No. 1.	No. 3.
G.m.b. at Glasgow (deliverable alongside)	75s.–76s.	73s.–75s.
Gartsherrie ditto ditto	87 6	76 0
Coltness ditto ditto	90 0	77 0
Summerlee ditto ditto	90 0	77 0
Carnbroe ditto ditto	86 6	76 0
Monkland ditto ditto	76 0	74 0
Clyde ditto ditto	76 0	74 0
Govan, at Broomielaw ditto	76 0	74 0
Langloan, at Port Dundas ditto	90 0	77 0
Calder ditto ditto	90 0	80 0
Glengarnock, at Ardrossan ditto	87 6	76 6
Eglinton ditto ditto	75 0	73 6
Dalmellington ditto ditto	80 0	74 0
Carron, at Grangemouth, selected, ditto	87 6	—
Shotts, at Leith ditto	87 6	77 6
Kinnell, at Boness ditto	85 0	74 0
Bar iron	£ 9 10	—
Nail rods	9 10	—

SHIPMENTS.

Week ending Jan. 16, 1875 ... Tons	8,314
Week ending Jan. 17, 1874	7,236
Increase	1,078
Total increase for 1875	3,759
Imports of Middlesborough pig-iron into Grangemouth:—	
For the week ending Jan. 17, 1874 ... Tons	3,050
For the week ending Jan. 16, 1875	4,160
Increase	1,110
Total increase for 1875	25

Warrants, since last report, continue so quiet and flat that yesterday makers reduced No. 1, 2s. 6d.; and No. 3, 1s. per ton; and it would not surprise us if a further reduction were shortly announced in the present depressed state of the market. The shipments, however, show an increase on last year, when prices were much higher. The state of the pig-iron market has rendered bar-iron nearly unsaleable, makers complaining of the indifference of buyers and the difficulty of inducing orders. The shipments are composed, to a great extent, of castings and machinery, which branches are well employed. The Messrs. Neilson, engineers and locomotive builders, are about to add to their already extensive works. The foremen engineers of this district celebrated the anniversary of the birth of James Watt on Saturday afternoon last. The attendance was large, and Mr. John Thomson (the chairman) proposed the toast of the evening—"The memory of James Watt"—in a stirring address.

For coals—owing to the inadequate arrangements of the railway companies—there is an apparent good demand, but it is simply the result of the inability of the railway carriers to bring forward the output freely to the market, and for their negligence the public are paying enhanced prices. Brokers and exporters of coal are very much chagrined at the difficulties of transit, and are retaining their orders in their own hands as long as they can, in the hope of lower prices In the Wishaw district great numbers of miners have been very ill off during last and this month, and a good deal of distress prevails amongst the more improvident. The coal shipments of the week are an improvement over those of the corresponding week of last year, the figures being 31,502 tons, against 26,422 last year.

The Fife Coal Trade is very similarly circumstanced, the same complaint of want of wagons, and of deliveries being consequently in arrears. Prices, therefore, are easy, and the want of wagons has thrown a number of colliers out of work. In the face of this, however, the miners made application through their secretary for an advance of wages at the rate of 1s. per day. The coalowners, in refusing to comply with the request, stated that the present state of the market did not warrant such a proceeding. In accordance with the resolution passed by the coalmasters, a practical valuer has been going round the different collieries in Fife and Clackmannan taking a valuation of the colliery houses, and the men are now charged a fortnightly rent for their houses, which they enjoyed free before this movement took place.

The directors of the Glasgow Caradon Mining Company have agreed to recommend to the general meeting of shareholders the declaration of a dividend of 7½ per cent., payable on March 2. This, with the interim dividend of 5 per cent. already paid, makes 12½ per cent. for the year ending Dec. 31, 1874, carrying forward a balance of 667*l.* 11s. 3d.

THE SCOTCH MINING SHARE MARKET—WEEKLY REPORT AND LIST OF PRICES.

During the past week there has been a large business transacted, but in most cases at reduced prices. There has been no further reduction made in the Bank rate, although a fall of ½ per cent. was expected in some quarters. In coal and iron shares, Cairntable, at 6 9-16ths, show the only improvemement (1-16th per share), all others being lower; the heaviest fall is on Merry and Cuninghame, ½ per share, owing to sales by weak holders on rumours of a call; this opportunity should be taken to purchase the shares, as a rally will take place—in fact, has already been begun, the lowest point touched being 56s. In copper, &c., shares the movements are also adverse, Rio Tinto being an exception at 10¼; Tharsis shares again show the heaviest reduction, owing to sales on various rumours, and an expectation that the dividend may not be so good this time. In American, Emma shares continue good, and are higher, others unchanged. In oil shares, Young's Paraffin are slightly higher, but the others remain very dull. In miscellaneous, little change, but London and Glasgow Engineering and Iron Shipbuilding shares are rather weaker, notwithstanding a statement that they have lately secured contracts to the extent of 500,000*l.* A detailed list of the several days' business follows:—

On Thursday last a good business was done, but chiefly in Tharsis shares, which were heavily sold, and closed at a decline. Benhar, done at 15, closing 15 to 15¼. Bolckow, Vaughan, A, done at 55. Canadian Copper Pyrites, done at 36s. and 35s. 6d., closing 34s. 6d. to 35s. 6d. Cairntable, firmer, at 6½ to 6¾. Ebbw, 20 to 20¼. Port Washington, done at 74s., closing weak at 72s. to 74s. Huntington, done at 57s., closing 55s. 6d. to 56s. 6d. Marbella, done at 5¼ and 5 3-16ths, closing 5⅛ to 5 3-16ths. Merry and Cuninghame opened at 68s. 6d., but were afterwards done at 69s., closing 68s. 6d. to 69s. 6d. Monkland, ordinary, 78s. to 80s. Niddrie, done at 69s. 6d. and 70s., closing at these prices. Tharsis shares opened at 25⅜, but were sold down to 24⅝, closing weak at 24½ to 24¾; new shares, done at 17, closing 16¾ to 17.

On Friday there was again a large business transacted. Arniston shares done at 6⅛. Benhar done at 15. Cairntable done at 6⅝, closing 6½ to 6¾. Canadian Copper Pyrites done at 34s. 6d. and 34s., closing 34s. to 35s. Ebbw done at 20⅛ and 20⅜, closing 20 to 20¼. Emma shares good, done at 33s. and 33s. 6d., closing 33s. to 34s. Fife Coal shares offered at 5. Glasgow Caradon done at 32s., closing 31s. 6d. to 32s. 6d.; new shares, 19s. 6d. to 20s. 6d. Gunnislake (Clitters), firm at 1⅛ to 1¼. Huntington remain at 57s.; an interim dividend is now announced as payable on these shares on Feb. 3, amounting to 4s. 6d. each, or at the rate of 5 per cent. per annum, less income tax. Marbella flat, done at 5⅛ and 5, closing 4⅞ to 5. Merry and Cuninghame firm at 69s. to 69s. 6d. Monkland ordinarys hares done at 79s. and 78s. 6d., closing 78s. 6d. to 79s. 6d. Niddrie done at 69s. 6d., closing 69s. 6d. to 70s. Rio Tinto changed hands at 10¼, being ¼ premium, as the shares are now fully paid up. Tharsis were again very largely dealt in, and at one time touched 22¾, after opening at 24, but finally close better at 23 9-16ths to 23⅝; new shares done at 16 and 16⅛, closing 16⅛ to 16¼.

On Saturday the business was smaller. Benhar shares done at 15, closing 15 to 15⅛ Cairntable, 6¼ to 6¾. Canadian Copper Pyrites done at 34s., closing 34s. to 35s. Colorado Terrible, 4 to 4¼. Chillington Iron, 6 to 6¼. Ebbw done at 20, closing 20 to 20¼. Emma, 32s. to 32s. 6d. Glasgow Caradon, 31s. 6d. to 32s. 6d. Port Washington still offered at 74s. Javali firm at 4s. 6d. to 5s. 6d.; the reports from this mine continue of a satisfactory nature, so that the shares at present prices must be considered cheap. Marbella again lower, done at 4⅞ and 4¾, closing 4⅝ to 4⅞. Merry and Cuninghame, 69s. 6d. to 70s. Monkland ordinary shares lower, at 77s. to 79s. Niddrie done at 3½, closing 69s. 6d. to 70s. Rio Tinto, 10⅛ to 10¾. Shotts Iron new shares done at 6. Thasis again attracted attention, opened at 23¼, but improved to 24, closing 23⅞ to 23 15-16ths; new shares done at 16¼, closing 16⅛ to 16⅜. Young's Paraffin better, at 5 to 5¼.

On Monday a considerable business was done, attention, however, being still chiefly directed to Tharsis. Benhar, 15 to 15⅛. Cairntable, 6¼ to 6¾. Canadian Copper Pyrites were also largely dealt in, opened at 34s. 9d., but declined to 33s. 6d., closing 33s. to 34s. Ebbw done at 20⅛, closing 20 to 20¼. Emma done at 32s., 31s. 6d., 31s., and 32s., closing 31s. 6d. to 32s. 6d. Glasgow Caradon, 31s. 6d. to 32s. 6d. Port Washington, all paid, offered at 6¼, being a decline of ¼ per share. Marbella done at 4⅞, closing 97s. to 98s. Merry and Cuninghame done at 70s. 69s., 68s. 6d., and 68s., closing 68s. to 68s. 6d. Monkland, ordinary, done at 78s. 6d., closing 78s. to 78s. 6d. Tharsis were again largely dealt in, opened at 24, but were sold down to 23, closing 22⅞ to 23. New shares also declined, opened at 16⅛ and done as low as 15⅞, closing 15¾ to 16.

On Tuesday a good business was done. Benhar done at 15, closing 15 to 15 1-16. Cairntable done at 6 9-16, closing 6½ to 6⅝. Colorado Terrible lower at 3⅞ to 4⅛. Ebbw done at 20, closing 20 to 20⅛. Emma good, done at 31s. 6d., 32s. and 32s. 6d., closing 32s. 6d. to 33s. It appears that Mr. Gardiner and the solicitor who went to America with him have returned, and are of opinion that they have a strong cause against the vendors; and as a statement to this effect will probably be published in a few days, those who have already got the information are buying, as the shares may be expected to go better; but it must be remembered that it will be difficult indeed to get anything out of Messrs. Park, Stewart, and Co. Glasgow Caradon unchanged at 32s.; a dividend of 7½ per cent. is now declared on the capital of this company, payable on March 3. With the interim dividend of 5 per cent. for the half year already paid, this will make a return of 12½ per cent. to the shareholders for last year. The balance to be carried forward is 667*l.*, which, it may be pointed out, is equal to an additional return of over 2 per cent. on the capital. This dividend is just the same as was paid last year, but the balance then carried forward was 879*l.*

Port Washington, which are now quoted as 8*l.* paid, a call of 1*l.* per share having been made, are flat at 4¼ to 4⅛, and the all-paid shares again ¼ lower at 6¼, sellers; Marbella firm, done at 99s. and 100s., closing 99s. to 100s.; Merry and Cuninghame weak, done at 67s., 68s. 6d., and 66s., closing 66s. to 66s. 6d.; Monkland ordinary done at 77s. 6d. and 77s., closing 76s. to 77s.; Niddrie done at 3½, closing 69s. to 70s.; Russia Copper lower at 2⅝ to 2⅞. Scottish Australian steady at 1⅜ to 1⅝; the directors have received advices from Sydney, dated Nov. 28 last, with reports from the Lambton Colliery to the 25th of that month. The sales of coal from the Lambton Colliery for the month of October amounted to 10,137 tons. Tharsis again largely dealt in, opened at 22⅝, but gradually improved to 23½, closing 23¾ to 23½; New shares opened at 15⅝, but also improved, being done at 16⅛, closing 16⅛ to 16¼, at which price they are relatively the cheaper. Young's Paraffin done at 5⅛, closing 5 to 5¼. Yorke Peninsula ordinary unchanged at ⅛ to ⅜, and 15 per cent. Guaranteed Preference slightly lower at ¾ to 1 for those all paid; the directors have received advices from the committee of inspection at Adelaide, dated Dec. 3 last, with reports from the Kurilla Mine to Nov. 30 last. These advices state—At the recent discoveries east of Hall's trial pit A (where ore was first found) has been deepened to 10 fms. from the surface. The lode is regular and defined, with a good south wall, and contains "pockets" of green and grey ore, which indicate unmistakeably deeper deposits. Having reached water level I put the men to drive a cross-cut north at 9 fms. deep (above the water line) to test the ground where so much veinstone and copper stains have been recently found in the costeaning works. After driving 2 fathoms through mica-slate a branch was met with, containing green and grey ore. At the other new lode, 33 fathoms north of A, I put four men to deepen the pit, where ore was discovered in September last, and at 3 fathoms from surface I came upon a "leader" of rich blue and green ore 9 in. wide. Of course I continue to follow it, and have reached 5 fms., where the lode is 2 ft. wide, composed of soft gossan, friable quartz, and ore of a most promising nature. The report concludes with the summary that, on the whole, the prospects of the mine have materially improved during the month, having special reference to the new lodes. The Yorke Peninsula, in South Australia, where the properties of this company are situated, has of late become the chief source whence the copper supplies of Australia have in recent years been drawn, and investors may be reminded that these properties are also in close proximity to the Wallaroo and Moonta Mines, the great results which were so quickly attained at them on lodes being struck encouraging the belief that since the Yorke Peninsula Company has also made a good discovery, as there can be no doubt it now has, equally remunerative results will be attained when the lodes are fairly and fully developed. An investment at the present low prices is strongly to be recommended, as the shares will go to double the present quotations before long; indeed, there are few shares on offer, and whenever a demand arises up they go, as, for instance lately, on the announcement of the discovery of the lodes they rose from 4s. to 16s. 3d. London and Glasgow Engineering weak at 20½ to 22¾; Scottish Wagon shares steady at 12 3-16ths to 12¼.

On Wednesday there was again a large business transacted. Benhar done at 15 1-16th, closing 15 1-16th to 15⅛; Bolckow, Vaughan, A, done at 54¾; Canadian Copper Pyrites done at 33s. 3d., 33s., and 32s. 6d., closing 32s. to 33s.; Ebbw done at 20, closing 20 to 20¼; Emma done at 32s. 3d. and 32s. 6d., closing 32s. 6d. to 33s. 6d.; Port Washington again weak, the all-paid shares being offered at 6; Huntington, 56s. to 57s.; Marbella done at 5 and 5⅛, closing 99s. to

100s. Merry and Cuninghame were very largely dealt in; opened at 65s. 6d., but gradually declined to 56s., closing 56s. 6d. to 57s.; the all-paid shares were not much affected, being done at 9½. Monkland ordinary done at 77s. and 76s., closing 76s. 6d. to 77s.; Niddrie, 69s. 6d. to 70s. Tharsis were not so largely dealt in, from 23¾ to 23⅝, closing 23¾ to 23½; New shares done at 16¼ and 16, closing 16 to 16⅛; Scottish Wagons unchanged, at 12 3-16th to 12¼. Subjoined will be found he latest prices:—

Amount share.	Amount paid-up.	Name.	Latest price.
		COAL, IRON, STEEL.	
£10	6	Arniston Coal (Limited)	6½
10	10	Benhar Coal (Limited)	15 1-16
100	35	Bolckow, Vaughan, and Co. (Limited) A.	54¾
10	7	Cairntable Gas Coal (Limited)	6½
10	10	Chillington Iron (Limited)	8
32	29	Ebbw Vale Steel, Iron, and Coal (Limited)	20
10	3	Fife Coal (Limited)	5
10	8	Glasgow Port Washington Iron and Coal (Limited).	4½
10	10	Ditto All paid	8
10	10	Lochore and Capledrae (Limited)	7 15-16
10	10	Marbella Iron Ore (Limited)	5
10	3½	Merry and Cuninghame (Limited)	59s.
10	10	Ditto All paid	9½
10	10	Monkland Iron and Coal (Limited)	76s.
10	10	Ditto 7 per cent. Guaranteed Preference.	158s.
100	100	Nant-y-Glo and Blaina Ironworks pref. (Limited)	40
10	2	Niddrie Coal (Limited)	3½
10	4	Omoa and Cleland Iron and Coal (Limited)	2¾
1	1	Scottish Australian Mining (Limited)	1½
1	5s.	Ditto New	6s. 3d.
50	50	Shotts Iron	77
10	4	Ditto New, issued at 2½ premium	6
		COPPER, LEAD, SULPHUR, TIN.	
10	7	Canadian Copper Pyrites (Limited)	1⅝
10	10	Ditto All paid	6¼
10	7	Cape Copper (Limited)	30¾
1	1	Cwm Bychan Silver-Lead (Limited)	⅞
1	1	Cwm Lery Lead (Limited)	⅛
—	5	Drake Walls	5
2	2	Dunsley Wheal Phœnix Tin (Limited)	⅜
1	1	Glasgow Caradon Copper Mining (Limited)	32s.
1	15s.	Ditto New	20s. 6d.
—	5¼	Gunnislake (Clitters)	1¾
10	9	Huntington Copper and Sulphur (Limited)	87s.
1	1	Islay Lead (Limited)	⅛
25s.	25s.	Kapunda Mining (Limited)	¼
4	4	Panulcillo Copper Mining (Limited)	⅞
10	10	Rio Tinto (Limited)	10¼
10	10	Russian Copper Mining (Limited)	2¾
—	6½	South Roskear	5
10	10	Tharsis Copper and Sulphur (Limited)	23⅜
10	7	Ditto New	16
—	80s.	West Maria and Fortescue	⅜
1	1	Yorke Peninsula Mining (Limited)	¼
1	5s.	Ditto 15 per cent. Guaranteed Preference	¼
		GOLD, SILVER.	
5	5	Colorado Terrible Mining (Limited)	3⅞
20	20	Emma Silver Mining (Limited)	1⅜
10	10	Flagstaff Silver Mining (Limited)	2½
2	2	Javali Gold Mine (Limited)	¼
5	5	Last Chance Silver Mining (Limited)	1
		OIL.	
10	7	Dalmeny Oil (Limited)	5⅞
5	5	Midlothian Mineral Oil (Limited)	1⅛
10	8	Uphall Mineral Oil (Limited)	5
10	10	West Calder Oil (Limited)	5½
10	8½	Young's Paraffin Light and Mineral Oil (Limited)	5½
		MISCELLANEOUS.	
10	10	Conglog Slate and Slab (Limited)	10¾
10	9	Highland Peat Fuel (Limited)	7
50	25	London & Glasgow Engineering & Iron Shipbuilding	22½
1	1	North Cornwall Kaolin (Limited)	1
20	9½	Peruvian Nitrate (Limited)	7
10	10	Scottish Wagon Company (Limited)	12¼
10	1	Ditto New	22s.

Last day for this account Jan. 26; settling day, Jan. 29.

NOTE.—The above list of mines and auxiliary associations is as full as can be ascertained, Scotch companies only being inserted, or those in which Scotch investors are interested. In the event of any being omitted, and parties desiring a quotation for them and such information as can be ascertained from time to time to be inserted in this list, they will be good enough to communicate the name of the company with any other particulars as full as possible.

J. GRANT MACLEAN, Stock and Share Broker.

Post Office Buildings, Stirling, Jan. 21.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Jan. 21.—The Iron Trade of South Staffordshire is steadily sustained, both in the pig and finished departments, and prices are well supported on the standard ruling at the quarterly meetings. Quotations of the leading houses are particularly firm, and it is only in exceptional cases that medium-class iron makers are willing to make slight concessions with the view of securing orders. Common cinder pig is steady, at 3*l.* 2s. 6d. to 3*l.* 7s. 6d. per ton; and all-mine at 5*l.* to 5*l.* 10s., with proportionate rates for intermediate qualities. For cold-blast pig of Lillenhall brand the demand is steady, and the price is firm, at 6*l.* 10s. per ton. Finished iron is well supported. Common bars are 9*l.* to 9*l.* 5s. per ton; marked ditto, 10*l.* 10s.; B.B.H. brand ditto, 11*l.*; and Round Oak (Earl Dudley's) ditto, 11*l.* 12s. 6d. per ton. Sheets (ordinary singles) are selling at 13*l.* to 14*l.* per ton, while for best qualities the full list quotations are well supported. The current demand runs largely upon the thin guages. Galvanised corrugated roofing sheets are in well-sustained request on account of the colonial markets.

The question of freightage rates on minerals and merchandise conveyed from this district to the seaports is to be discussed at a representative meeting of ironmasters and carrying companies at Euston on Friday. We are informed that the meeting will be strictly private, and that even the names of the gentlemen attending the conference will not be made known. Such a policy of secresy on a question of great public importance is, we venture to say, a mistake, and not a little dissatisfaction has been expressed in regard to it.

The South Staffordshire Coal Trade is without material alteration since our last report. Best Thick coal well maintains its price, and the demand both for manufacturing and household purposes is fairly sustained; but common coal is in quieter demand. In selling, prices are somewhat irregular. Common forge coal is offering at as low a rate as 9s. per ton in the Bentley district. Ironstones of local yield are in brisk demand, but available supplies are exceedingly restricted, and prices are firm at the lately advanced rates of 21s. for white ironstone, and 22s. for gubbin.

Three of the directors of John Bagnall and Sons (Limited)—Messrs. Barclay, Gem, and S. Lloyd, jun.—have issued a circular calling a special meeting of the shareholders at the Queen's Hotel, Birmingham, on Wednesday next. We understand that the three gentlemen named have resigned their seats at the board in consequence of the discovery by them of an agreement which had been entered into prior to the formation of the company by the trustees of the will of the late James Bagnall. This agreement is understood to have reference to the terms upon which the company was floated. One of the trustees and vendors of the property of the company have, we understand, issued a circular explaining and defending the transaction, declaring that it was not made known to the directors, simply because it was a negociation entered into by the trustees with the sanction of the Bagnall family, and because the amount paid under the agreement did not come either directly or indirectly out of the company's pocket. The directors, in resigning, state that the independent valuations taken by them for their own satisfaction shortly after they entered upon their duties, showed at the time an increase of more than 43,000*l.* over the purchase money.

An interim dividend at the rate of 10 per cent. per annum has been declared by the directors of the Patent Shaft and Axle Company (Limited), Wednesbury. An interim dividend at the rate of 10 per cent. per annum has been declared by the Metropolitan Railway Carriage and Wagon Company (Limited).

The following are among to-day's quotation on the Birmingham Stock Exchange:—Sandwell Park Colliery Company (Limited), (10*l.* paid) 34¾; Patent Shaft and Axle (Limited), 5¾ prem.; Patent Nut and Bolt (Limited), 4¾ prem.; John Bagnall and Sons (Limited), 6; Ivy House Colliery (Limited), par; Cannock and Huntington Colliery Company (Limited), ⅝ dis.; and Staffordshire Wheel and Axle 2¾ prem. The tone of the market is steadier.

The North Staffordshire Iron Trade is much steadier, and the action of the ironmasters at the quarterly meeting in declining to reduce prices appears to be fully justified by subsequent events. Crown bars are selling at 9*l.* 5s. per ton where good specifications. Grey forge pig-iron realises 3*l.* 10s. at the furnaces; furnace mine ironstone, 13s. 6d. to 14s. 6d. into truck or boats; and puddled mine from 20s. to 21s. At these rates considerable sales have been made for the quarter's requirements.

TRADE OF THE TYNE AND WEAR.

Jan. 21.—There has been a considerable business during the past week in best-class coals. Extensive shipments have been made in these rivers, both coastwise and foreign; at present, however, the demand is evidently slacker. Best house coals have been selling freely at 16s. to 16s. 6d. per ton at the works, and second-class coals at 12s. 6d. to 14s. 6d. per ton. Coke is in good demand, but stocks are held in some cases. Makers, however, stand firmly out for full rates. Best makes are 15s. 6d. and secondary sorts 14s. per ton at the pits. Gas coals in good request, at 10s. to 12s. at the pit. The continuance of the high rates of freight charged by the North-Eastern Railway Company, as we have noted lately, is a source of serious annoyance to the iron and coal masters of the district; and, as will be seen, joint action is to be taken for the purpose, if possible, not only of providing a remedy for the excessive charges complained of, but also to provide better accommodation and increased facilities for the mineral traffic of the district. So far the North-Eastern Railway Company has turned a deaf ear to all the representations of the iron and coal trade of the North, whether communicated through their special trade association or through the Freighters' Association, formed two years ago to watch over the interests of traders.

The improved state of the Finished Iron Trade is expected to be the dawn of brighter times. If the iron trade revives, which may reasonably be expected, as the cost of production is reduced, a better demand for both coal and coke is certain to follow, especially in South Durham, as several works have been again started, and also new furnaces lighted, in Cleveland and in Cumberland, and an improved demand for coke is already apparent. A great deal, of course, depends upon the action of the men, the days of famine prices are over, and in order to have constant employment lower rates and increased hours of labour must be submitted to.

At the meeting at Middlesborough on Tuesday the main topic discussed was the wages question. It was decided that the Cleveland miners shall be asked to submit to a reduction of 2d. per ton, and a proportionate reduction to be made in the wages of day men. A reduction of 10 per cent. is also to be made in the wages of blast-furnace men. There was a very large attendance. Merchants are struggiing hard to bring the price of pig metal down, and they are offering No. 3 at 57s. 6d., and No. 4 forge at 54s. 6d. to 55s. Makers, however, hold on with great tenacity to late rates, they are extremely unwilling to make any further concessions. Their quotations are generally 58s. to 59s. for No. 3, and 55s. 6d. to 56s. No. 4 forge. The market is, however, as might have been expected, in a very disturbed state, and it is difficult to give a correct account of rates, as there is much underselling going on both in the coal and iron trades. There is a decided improvement in the finished iron trade, two rail mills at Stockton and one at Middlesborough have been again started. Generally, however, more enquiries are wanted for rails, and all kinds of finished iron. Rails are quoted 7*l.* to 7*l.* 5s.; Ship plates, 9*l.* to 9*l.* 5s.; common bars, 8*l.* 5s.; puddled bars, 5*l.* 5s. There is a steady demand for plates. The bar trade is quiet. The coke trade is firmer.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

Jan. 21.—But little change has taken place in mining operations in the lead and coal districts of Derbyshire since my last notice. In the Peak, as well as at Wirksworth and other places, where the principal lead mines are situate, business moves along as usual, and so far production has not increased since the commencement of the new year. There is, however, plenty of room for improvement, seeing that the output for several years has shown no increase whatever, although considerable investments have been made by capitalists in the county in lead mines. The collieries have been doing very well for a considerable time past, sending largely to the metropolis. It is a somewhat singular fact that whilst the colliers' wages in every part of the kingdom are being reduced, at one place, at least, in Derbyshire there has just been a positive increase recently, equal to what was taken off last summer. Amongst the items of interest may be mentioned the calling together, by Mr. R. Ward Jackson, the proprietor of the Brampton Colliery, near Chesterfield, of his creditors. Mr. Jackson, who was formerly member for Middlesborough, and, we believe, Chairman of the North-Eastern Railway, has had some expensive litigation with that company, as well as with its present Chairman—Mr. Leeming, M.P. His difficulties, it is understood, are the result of such litigation.

In Sheffield trade continues very quiet indeed in several branches. At the Atlas and Cyclops Works, the two great establishments where heavy armour-plates are produced, there is a very fair business being done in those important defensive articles; but there does not appear so much activity with respect to Bessemer material, although there is every appearance that there will be a fair demand for rails during the year. In malleable castings business is without much change, having been tolerably brisk for a considerable time past, for many articles that were formerly made of steel are now being made of malleable iron, and are made in sharpness and finish equal to the former. Table and spring knife cutlery is in but moderate request, and a good many workmen are now on short time. The collieries throughout South Yorkshire have been working very well, and a considerable tonnage of Silkstone and other coal is being sent over the Great Northern to the metropolis. Prices have undergone no change at the pits.

A sad event took place at the Manver's Main Colliery, near Rotherham, on Tuesday. Mr. Joseph Longbottom, the commercial manager, was in the counting-house about a quarter to nine, when he suddenly fell to the ground, and on being immediately picked up was found to be quite dead. Deceased was very much respected by all persons connected with the colliery, as well as by others, and only so recently as New Year's day was presented with a gold watch and chain, valued 70*l.*, as a proof of the estimation in which he was held.

YORKSHIRE COLLEGE OF SCIENCE.—Three fresh courses of lectures are now being commenced in connection with the Yorkshire College of Science. Prof. Rücker, in delivering the introductory lecture of his course, "On Gases and Vapours, with Special Reference to Steam," first deal with the characteristics of the gaseous state, and the specific gravity and pressure of gases. He also treated of the principle of the barometer, and showed by some interesting experiments the methods of measuring temperature. In future lectures the causes of explosions in boilers, and the application of scientific principles of the theory of ventilation would be considered.—On Monday Prof. Thorpe opened a course "On Iron and Coal," and another course will shortly be commenced by Prof. Green "On the Geology of Coal."

THE LONDON COAL TRADE, AND RAILWAY-BORNE COAL.—The by no means unimportant question of the reason for the present high price of coal in the Metropolis has once more been brought prominently forward, and for the very significant reason that the consumption during the last year was about 462,000 tons less than in 1873, and actually 134,900 tons less than in 1872. Thus, whilst according to the ordinary tables there has been an increase of about 181,000 in the population, there has been a positive decrease in the consumption of coal to the extent of nearly 600,000 tons. This is considered to be the result of the high rates which have ruled since June, 1872, when the price of the best coal in London was 28s. per ton, but had advanced to 35s. per ton before the close of the same year. In 1873, for nearly a fortnight in February, the price had gone up to 50s. and then to 52s. per ton, since which time it had varied very much. The rate on the last day of 1874 was 37s. per ton, and since then at least 2s. per ton higher than during the corresponding period of the same year. At such a price it is needless to say that to the poor the hardships they endured during the severe frost must have been very great indeed. Some of the London merchants, however, have endeavoured to show that whilst coal was such a costly luxury their profits were truly moderate. But, so far from this being the case, we knew that at the time when coal had reached its highest point some of these gentlemen had contracts on hand that made their profits very large. Ordinary coal that was sold at the pits at the rate of 21 cwts. (the ordinary railway ton) for 15s. or 16s. made 32s. and 33s. per ton in London. The miners have been kept *au fait* as to the price of coal in the metropolis, and, giving colliery owners the credit for reaping all the advantage of such extraordinary rates, have sought for an advance of wages in consequence, or, when the markets were overstocked, refused to submit to any reduction of wages.

At the present time Silkstones in South Yorkshire can be purchased at from 16s. to 17s. per ton of 21 cwts., but are sold at 33s. per ton of 20 cwts., so that the actual cost of the coal at the pits is nearly doubled before it reaches the London consumer, the railway rate, including City dues, being 8s. 11d. per 21 cwts., and the wagon hire for the same from 1s. 4d. to 1s. 6d. per ton. What there is wanted in the interest alike of colliery owners and the London consumers is that the former should become their own merchants, and so do away with the intermediate profits, when the public would have a sure guarantee of the coal purchased being from the pit it was stated to come from. This is certainly not the case at the present time, nor has it been for very many years, for we find from the evidence of Mr. Cockerell (the well-known coal merchant), given before the Select Committee on Coal in 1873, that monstrous frauds are perpetrated by merchants who do a very large business.

Mr. Cockerell also admits that a good deal of "rubbishy coal with short weight is sold in London for household purposes;" not only the very poor, but others as well are the victims of these unprincipled but well-to-do merchants, who, according to Mr. Cockerell, make large profits by false pretences, selling a very inferior article for one that is really good, and known to be so by its legitimate name. Some of these gentry, like most of their class, make great pretensions to superior honesty, and become highly indignant and abusive when any allusion is made to their large and unfairly earned gains. As an illustration, we find that a statement which appeared in several papers that Silkstone coal could be purchased at pits at 16s. to 17s. per ton was denied in unmeasured terms by one of the "hawks" alluded to, who stated that Newton, Chambers, and Co.'s price was 18s. per ton. This was correct, no doubt, but then it proved nothing, for Silkstone coal is no more confined to one colliery than is any gaol in London intended for the safe keeping of a single swindler. Silkstone coal is not only worked in different parts of Yorkshire, but in Derbyshire, and throughout the greater part of the Midland coal field, which extends from Nottingham to Leeds, comprising several hundreds of square miles. It is also worked in Lancashire under the name of the Arley Mine and others. The price of the coal varies a good deal, as does the quality. But the constant pointing to the fact that the coal of Newton and Co., hand-picked, we believe, for the London market, realised 18s. per ton is evidently done to lead the public to suppose that such is the price paid in all instances. It also acts injuriously towards the firm of colliery owners alluded to, for such things do no escape the notice of those they employ, and are likely to pave the road for complications that might seriously interfere with the ordinary working of the pits. To prevent a recurrence of such statements, and looking at the many new coal fields now being opened out in almost every mining district in the kingdom, our colliery owners, sending by railway in particular, should put themselves in a position to sell the production of their collieries so as to obviate the heavy tax now levied on the London consumers by the so-called merchants. It will be done sooner or later, and those who now take the initiative are those who will be most benefited. Not only so, but they will receive the hearty thanks of consumers, by making the coal trade in London a legitimate one, and at the same time as far as possible close the career of those who have so long imposed upon the public, and done so much injury to the poor. Their unscrupulous conduct has brought into disrepute coal from pits that is of really excellent quality, and it certainly appears to us that the time for depriving them of the power to do so any longer has now arrived.

CRUCIBLE STEEL CASTINGS.—These castings—steel melted in closed crucibles, each holding about 50 lbs. weight—are known to be stronger than malleable iron or ordinary metal castings, and far superior in strength to even best wrought-iron forgings, whilst, also, combining the advantages of greater lightness, strength, and elasticity, with extraordinary lasting and wearing powers. This arises principally from crucible steel being possessed of greater denseness and closeness of texture of the grain when manufactured on improved principles. It also compares favourably in price with more expensive metals, such as gun-metal and phosphor bronze, whilst it works equally as well and regular and as smooth as gun-metal, and wears longer. It is admirably adapted for all classes of machinery liable to great wear and tear, sudden shocks, strains, or breakages. In consequence of its excessive strength and toughness, especially when passed through Hadfield's Steel Foundry Company's, Sheffield, special apparatus, castings become so greatly improved that there is less liability either to fracture or breakages, the only condition to be observed in using steel castings is, when ordering them, to state the purpose for which they are required, so that they may be made suitable to requirements.

REPORT FROM MONMOUTH AND SOUTH WALES.

Jan. 21.—The past week has been a period of considerable anxiety to all people in the iron and coal districts, except, perhaps, the colliers themselves. As stated in last week's report a general lock-out was rumoured as likely to take place, and it was expected that a meeting of the associated iron and coal masters, to be held at Cardiff on Friday, would decide the question. The conference was held, and the proceedings kept as secret as possible, but there was no doubt that the chief subject under consideration was the suggested lock-out. Proprietors whose pits were idle strongly advocated a general lock-out, arguing, it would appear, that it was not right that some masters should be receiving high prices for their coal, and thus reaping great benefits from the strike at their neighbours' collieries. This was, of course, owing to a large number of the men having accepted the reduction in wages. There were others, however, unwilling to resort to such a disastrous course, and the result was that the consideration of the matter had to be adjourned. To-morrow (Friday) the masters meet again, when it is thought the course to be taken will be determined upon. Whether it will be a general lock-out or not is uncertain, but the worst is apprehended. So a good deal of anxiety has prevailed, and the morrow is looked forward to with mingled dread and hope. Nothing more disastrous than a lock-out could possibly be contemplated, and it behoves masters and men to well and thoroughly consider what they are doing before such a dire step is taken. It is not a matter to be adopted one day and abandoned the next; when once determined upon it is quite probable that some months will elapse before work will be resumed, and it may be years before the trade, which will in that time be lost to the district, can be recovered. The men on strike, it is to be regretted, seem only to become more and more indifferent on the matter, many of them caring little what course the masters take. There are, however, many thousands of toilers in the district who have very different feelings on the matter, and upon whom enforced idleness will come as a very heavy burden indeed. If, therefore, the lock-out be really resorted to the employers must incur very great responsibilities, for distress of the most dire description must ensue.

Lord Aberdare has this week given an expression of opinion on the position of affairs between masters and men, and to some extent justified the men in calling upon the masters to show them how the reduction in wages has become necessary, and the men seem to be strengthened in their cause.

The output of coal is, of course, limited, and very high prices are paid for supplies. At the local ports a number of vessels have been waiting for cargoes, and as there seems but a poor prospect of their getting them a general movement is being made to the North of England ports, where supplies can be obtained.

Much about the same dulness is to be noticed at the ironworks, except at Dowlais, where a little more activity prevails. Orders are almost *nil*.

The profit and loss account submitted to the half-yearly general meeting of the Wayne's Merthyr Steam Coal and Ironworks Company showed a balance of profit in the half-year ending Aug. 31 last year amounting to 14,825*l.* 2s. 9d. A dividend of 5 per cent. was declared on the ordinary shares.

The dividend and bonus of the West of England and South Wales District Bank for the past year are equal to 14 per cent. per annum, and after payment of which 21,229*l.* will remain to be added to the reserve fund.

Warrants for the dividends at the rate of 10 per cent. per annum have been forwarded to the shareholders of Richards and Company (Limited), and the directors intimate that they are now prepared to receive applications for the unallotted shares. The company, it is stated, is doing a large and prosperous business.

TESTING OF ROPE CORDAGE.—An experiment has been made at the Trinity Chain Cable Testing Works to ascertain the tensile strength of two pieces of hempen rope cordage. There were present several persons connected with the shipping interest, and deeply interested in the cordage question. The tests lasted about two hours, and were conducted by Mr. L. R. Isitt, superintendent of the works. There were two pieces of 5-inch rope tested, cut from two classes of cordage made in Dublin, one piece being made from yarn spun in Russia, imported into Dublin, and there made into rope; the other piece was spun by the Irish rope-spinners of that city. The results of the tests briefly stated are as follows:—The ultimate stress of breaking strain of the Irish hand-spun yarn rope was 7 tons, while the Russian yarn-rope broke at 5 tons 9 cwts. 1 qr. 4 lbs. The inference from this is that the Irish hand-spun was superior in testing strength by 1 ton 10 cwts. 2 qrs. 24 lbs. over the Russian yarn cordage.

The following reports was received too late for insertion in its proper place:—

LOVELL (THE).—J. Nancarrow, Jan. 20: Monthly Report: There is no change in the 12 west since last reported on. We resume the driving of the 20 west, where there is a promising lode. The lode above the 30 east is worth from 12*l.* to 14*l.* per fathom. There is a fine lode in the 40 east, worth for the whole width 60*l.* per fm. The part of the lode carried in the 40 west is worth 35*l.* per fathom, but this is only half the width, the other part being gone beyond the boundary. We have cut into granite at the 40, in the south side east of the shaft, and left a good lode standing above and below. We are pushing on the driving in each end. Owing to the heavy rain the adit-shaft crushed together, filling it for 5 fms., and choking the adit, which for a time greatly endangered the working of the mine; but the water fortunately found its way through the stuff antil we had cleared the shaft, which is now secured, and the adit is cleared and secured also. The water is increasing at the 40, and we shall soon have to fix a lift at that level. Our returns are increasing, and with the advancing tin standard we shall work to profit.

Vice-Chancellor Hall has appointed Mr. Jas. Waddell, accountant, liquidator of the Monte Loreto Gold and Copper Mining Company (Limited).

A petition for winding up the Catherine and Jane Lead Mining Company (Limited) has been presented to the Court of Chancery.

COALS.

CONTRACT DEPARTMENT, ADMIRALTY, WHITEHALL, S.W.,
14TH JANUARY, 1875.

TENDERS will be RECEIVED until Two o'clock on THURSDAY, the 28th instant, for the SUPPLY of the undermentioned QUANTITIES of COALS required for the use of the Department of the Director of Works of the Navy, viz.:—

DEPTFORD	GAS COALS	400 TONS.
CHATHAM	STEAM ENGINE COALS	7500 ,,
PORTSMOUTH	ditto	1000 ,,
PORTSMOUTH	BRICK BURNING COALS	3600 ,,
PEMBROKE	GAS COALS	850 ,,

Their Lordships do not bind themselves to accept the lowest or any tender, and they reserve to themselves the power of accepting any part of a tender.

Forms of Tender for each place, containing all particulars, may be obtained at this office, on application, either personal or by letter.

FRANCIS W. ROWSELL, Superintendent of Contracts.

ROCK DRILL, AIR COMPRESSOR, GEARING, AND INCIDENTALS,

APPARATUS FOR USE IN SOUTH AMERICA.

PLANS, SPECIFICATIONS, and TENDERS (all gratis) for the above, subject to the following and such other conditions as may arise, may be sent to the undersigned.

The COMPRESSOR will be worked by a 24 ft. overshot water-wheel, running ten revolutions per minute. Its bed-plate must be cast in pieces, and arranged for bolting down to wooden bed. India-rubber tubing for air and water, with proper connections and fittings to be included for the first 50 fms. of driving. Simplicity of design in construction preferred. The carriage to run on steel rails. Necessary duplicate parts, spare drills, &c., to be tendered for.

Package in boxes to weigh as a rule not over 125 lbs. gross, and not to exceed 3 feet length. If excess is unavoidable, no case or package to exceed 200 lbs.

The rock—hard hornblendic gneiss.

GEORGE H. CARDOZO,
15, New Broad-street, E.C.

GENERAL MINING COMPANY FOR IRELAND

(LIMITED). *IN LIQUIDATION.*

MINING AND MANUFACTURING PROPERTY AND PLANT AND MACHINERY FOR SALE.

THE LIQUIDATORS are prepared to RECEIVE TENDERS for the PURCHASE, in One Lot, of the COMPANY'S EXTENSIVE and VALUABLE LEASEHOLD INTERESTS at Silvermines, in the County Tipperary, and the complete MINING and MANUFACTURING PLANT and MACHINERY on the property.

The Silvermines mineral property is within five miles of Nenagh, and the line of railway from that town to Birdhill runs close by the mines.

The deposits consist of Calamine, Carbonate of Zinc (supposed to be the only one of the kind in the United Kingdom), Silver-lead, Blende, Copper, Sulphur Ore, and Fire-clay.

The manufacturing portion of the property consists of the Furnaces and appliances for making Oxide of Zinc, which have been in active operation up to a recent period.

Detailed particulars of the property, plant, and machinery can be had on application, and Tenders for the whole, in One Lot, will be received at the office of the Liquidators, 29, Westmoreland-street, Dublin, up to Wednesday, the 10th day of February, 1875, inclusive, but the Liquidators do not bind themselves to accept the highest or any offer.—Dublin, 7th January, 1875.

IN THE MATTER OF THE VOLUNTARY LIQUIDATION OF THE PERKINS BEACH MINE (LIMITED).

THE LIQUIDATOR appointed in the above Matter is prepared to RECEIVE TENDERS for the PURCHASE of the PLANT, MACHINERY, and other EFFECTS, now lying in and about the above Mine.

The Perkins Beach Mine, which is now in full working order, is situate in the parish of Worthen, in Shropshire. It adjoins the Tankerville Mine, and lies between it and the celebrated Snailbeach Mine.

Several valuable lodes have been proved to exist in the sett, and a large sum of money has been expended in developing them. It is the opinion of gentlemen well acquainted with the district that the Mine only requires to be developed to a greater depth to prove it one of the best in the Shropshire Lead District.

The PLANT includes THREE STEAM ENGINES, a large quantity of RAILS, STORES, TIMBER, DRESSING FLOORS, OFFICE, and other FITTINGS and EFFECTS.

The Mine is held under Leases for 21 years, from the 29th September, 1869, at a royalty of 1-12th, and the purchaser will be entitled to all such interest in the said leases as is vested in the Liquidator, and which he is empowered to dispose of.

Full particulars may be obtained from Mr. E. FIRMSTONE HEATH, Exchange Chambers, Wolverhampton, to whom sealed tenders may be sent on or before the 5th day of February next, and from whom orders to inspect the Mine may be obtained.

The Liquidator is not bound to accept the highest or any Tender.

TO BE SOLD, BY PRIVATE CONTRACT, the LEAD MINES, called—

SUCCESS, RUSHY CLIFF, AND NANCY,

Situate at TISSINGTON, near ASHBOURNE, DERBYSHIRE.

Specifications, and cards to view the Mines, may be obtained of the Secretary 61, Osmaston-street, Derby, on and after Monday, January 25th.

Tenders to be sent in on or before February 11th, 1875.

St. Mary's Gate, Derby, January 18th, 1875. W. H. SALE, Solicitor.

FINE OPPORTUNITY FOR MAKING A FORTUNE.

TO BE SOLD, PART or ENTIRE (former preferred) of a COLLIERY ROYALTY, of about 170 acres, in NORTH WALES. The pit is sunk 40 yards deep to the seam containing the best description of Cannel. There are six other seams of good coal (the first being King Coal, only 14 yards under it) known to be beneath this seam. Its situation being half a mile from a railway station, and also admirably adapted for land sale, close to excellent roads, the working expenses, royalty, rent, and outlay small for a probable get in a few weeks of 40 tons daily at an almost fabulous profit, render the present undertaking one well worthy the immediate attention of capitalists, coal dealers, gas manufacturers, or colliery proprietors.

Address, "Q. E. D.," care of Mr. Watson, 15, Fenwick-street, Liverpool.

SMALL GOING COLLIERY

TO BE DISPOSED OF, IN FIFE, N.B.—The coal is very rich, and is said to resemble closely the Newcastle coking coal. Very little capital required to pay for start, and to work the concern. Offers of cash for start and machinery, and of lordships, &c., &c., received up to the 10th February.

Particulars on application to Messrs. TRAQUAIR and DICKSON, 17, Young-street, Edinburgh.

COAL.

FOR SALE, TWO HUNDRED ACRES of COAL, in the county of GLOUCESTER, adjoining the Midland Railway, and within five minutes' drive from a station. More coal in the neighbourhood could, no doubt, be procured.—For full particulars, apply to BURGES, LAWRENCE, and ROBERTS, Solicitors, Bristol.

TO CAPITALISTS.

FOR SALE,—IN NEW SOUTH WALES,—

1340 ACRES TIN LANDS,—Lode and Stream.
2430 ACRES COPPER LANDS (portions freehold).
2112 ACRES IRON AND COAL.
2250 ACRES COAL (on sea coast).
4000 ACRES COAL (inland, on railway line).
200 ACRES KEROSENE SHALE.
200 ACRES PLUMBAGO.
105 ACRES FREEHOLD GOLD DEPOSIT (Brown's Creek).

The above properties are all first-class, and on or near railway lines or water carriage, and are the very "pick" of their respective districts (being some of the first selections made).

Liberal terms, either as to purchase or working on royalty, will be given to parties able to carry out arrangements.

Apply to the owner,—

CHARLES W. WEEKES, Circular Quay, Sydney, N.S.W.

CORNISH ENGINES.

FOR SALE:—

ONE excellent 70 in. CORNISH PUMPING ENGINE, 10 ft. stroke, with metallic piston, with or without three boilers, 13 tons each, with fittings.

ONE good 72 in. CORNISH BEAM ENGINE, 10 ft. stroke, with inverted cylinder.

ONE superior 50 in. CORNISH PUMPING ENGINE, 10 ft. stroke.

ONE first-class 28 in. WINDING ENGINE, 6 ft. stroke, suitable for a colliery, with drum.

ONE very good 20 in. horizontal WINDING ENGINE, 10 ft. stroke.

PUMPWORK of all sizes; CORNISH CRUSHERS; BOILERS from 6 to 13 tons; and a LARGE STOCK of MATERIALS in general use in mines.

Apply to F. W. MICHELL and Co., Mine Material Depôt, East Carn Brea, Redruth, Cornwall.

FOR SALE, ONE PAIR of horizontal DIRECT-ACTING DOUBLE-ACTION CONDENSING PUMPING ENGINES, cylinders 35½ in. diameter, 36 in. stroke; pumps 21½ in. diameter, 36 in. stroke; fly wheel 14 ft. diameter, about 12 tons; will lift 2800 gallons a minute 150 ft. high. Have been very little used.

For further particulars address Mr. W. P. FRANCE, Priory Lodge, Peckham.

PIT SINKING AND WINDING COAL.

FOR SALE, and ready for immediate delivery, a 14, 18, 25, and 35 horse power PORTABLE STEAM ENGINES, with link motion reversing gear, winding drum, gear, &c., complete.

Also, a 9 and 18 horse power VERTICAL ENGINES, with link motion reversing gear, suitable for mining operations.

FOR SALE,—An excellent PORTABLE STEAM ENGINE; and a 7-ft. PAN MORTAR MILL. Apply to—

BARROWS AND STEWART, ENGINEERS, BANBURY.

FOR SALE, a 5-inch "HEDLEY" DIAL, by DAVIS, Derby, nearly new, in thorough order.

Apply, T. L. COTTINGHAM, 36, Upper Northgate-street, Chester.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall and Devon.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the NATIVE IRON ORE COMPANY (LIMITED).—The Vice-Warden has, by an Order made in the above Matter, bearing date the 16th day of January instant, appointed JOHN HENRY HAMLEY, of Truro, within the said Stannaries, an Officer of the said Court, to be absolutely the Official Liquidator of the above-named company.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, January 19th, 1875.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall and Devon.

IN the MATTER of the COMPANIES ACTS, 1862 and 1867, and of the NATIVE IRON ORE COMPANY (LIMITED).—Notice is hereby given, that ALL CREDITORS of the above-named company are required, on or before the 30th day of January instant, TO SEND IN their NAMES and ADDRESSES, and the AMOUNTS and PARTICULARS of their several CLAIMS, to JOHN HENRY HAMLEY, the Official Liquidator of the said company, at the Stannaries Court Office, in Truro, within the said Stannaries.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, January 19th, 1875.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the NEW WHEAL LOVELL MINING COMPANY.—The Registrar of this Court has appointed FRIDAY, the 29th day of January instant, at Eleven o'clock in the forenoon, at the Registrar's Office, at Truro, TO SETTLE the LIST OF CONTRIBUTORIES of the above-named company, now made out and deposited at the said office.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, this 19th day of January, 1875.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the LEEDS TIN MINE COMPANY.—By an Order made by His Honor, the Vice-Warden of the Stannaries, in the said matter, dated the 18th day of January instant, on the petition of William Harvey, Henry Whitford, William West, William John Rawlings, William Husband, Francis Harvey, and Nicholas James West (carrying on business at Hayle, within the said Stannaries, as General Merchants, under the style or firm of "Harvey and Co."), shareholders, and claiming to be also creditors of the said company, IT WAS ORDERED that the LEEDS TIN MINE COMPANY should be WOUND-UP by this Court under the provisions of the Companies Act, 1862.

HODGE, HOCKIN, AND MARRACK, Truro.
(Solicitors for the said Petitioners.)

Dated Truro, January 19th, 1875.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the LEEDS TIN MINE COMPANY.—The Vice-Warden has, by an Order made in the above Matter, bearing date the 18th day of January instant, appointed CHARLES WILLIAM CLINTON, of Truro, within the said Stannaries, an Officer of the said Court, to be absolutely Official Liquidator of the above-named company.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, January 19th, 1875.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the LEEDS TIN MINE COMPANY.—Notice is hereby given, that ALL CREDITORS of the above-named company are required, on or before the 30th day of January instant, TO SEND IN their NAMES and ADDRESSES, and the AMOUNTS and PARTICULARS of their several CLAIMS, to CHARLES WILLIAM CLINTON, the Official Liquidator of the said company, at the Stannaries Court Office, in Truro, within the said Stannaries.

FREDERICK MARSHALL, Registrar.

Dated Registrar's Office, Truro, January 19th, 1875.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN the MATTER of the COMPANIES ACT, 1862, and of the EAST NEW WHEAL LOVELL MINING COMPANY.—By direction of His Honor, the Vice-Warden, Notice is hereby given, that on Thursday, the 4th day of February next, at the Registrar's Office, at Truro, in the county of Cornwall, at Eleven o'clock in the forenoon, this Court will proceed to MAKE a CALL of THREE SHILLINGS PER SHARE on all the contributories of the said company, settled on the List of Contributories as present members thereof.

All persons interested therein are entitled to attend at the time and place aforesaid, to offer objections to such call.

CHARLES WILLIAM CLINTON, Official Liquidator.

Dated Stannaries Court Office, Truro, 21st January, 1875.

TO BE SOLD, pursuant to a Decree of the High Court of Chancery, made in a Cause MARRACK against BAKER, 1872, M. 175, with the approbation of the Master of the Rolls, in Forty Lots, by WILLIAM JAMES JOHNS, the person appointed by the said Judge, at the Cornubia Hotel, Copperhouse, Hayle, in the county of Cornwall, on Tuesday, the 16th day of February, 1875, at Two o'clock in the afternoon precisely, the ENGINE WORKS, BRASS and IRON FOUNDRIES, HAMMER MILLS, and PREMISES, constituting

THE COPPERHOUSE FOUNDRY,

Situate at Copperhouse, in the town and port of Hayle, in the county of Cornwall, which has been carried on for upwards of fifty years by the Cornish Copper Company, under the style of Sandys, Vivian, and Company.

Together with the SHIPBUILDING YARD, ROPERY, GAS WORKS carried on in connection with the above business, and about 140 DWELLING HOUSES and COTTAGES, to most of which gardens are annexed; FARMSTEAD and other BUILDINGS—the whole forming a large part of the ESTATES of TREVASSACK and VENTONLEAGUE, containing together nearly FORTY ACRES, 47-60ths of which are held for the residue of a term of 999 years, of which about 904 are unexpired, at a peppercorn rent, with the benefit of a covenant to convey the reversion in fee, and the remaining 13-60ths are held in fee.

This property is situate at the head of the harbour of Hayle, and in the midst of the Cornish mining district, and possesses all the requirements and conveniences for carrying on the above businesses, either as a whole or separately, besides being adapted for carrying on any other extensive mercantile business, such as tin, iron, or copper smelting.

There is a dock and also wharves immediately abutting on the property, to the use of which the company have rights for the purpose of landing or exporting goods at nominal dues.

Facilities also exist for railway transit by the West Cornwall Railway, which runs through the property, and into which provisions have been made for carrying a siding from the company's works.

Printed particulars and conditions of sale, with plan annexed, may be had (gratis) in London of the following solicitors—Messrs. GREGORY, ROWCLIFFES, and RAWLE, 1, Bedford-row; Messrs. BENNETT, DAWSON, and BENNETT, New-square, Lincoln's Inn; Mr. R. SMITH, 7, New-square, Lincoln's Inn; Messrs. DANGERFIELD and FRASER, 26, Craven-street, Strand—and in the country of Messrs. STEPHENS, PRANCE, and JAGO, Plymouth; Messrs. RODD and CORNISH, Penzance; Messrs. CARLYON and PAULL, and Messrs. HODGE, HOCKIN, and MARRACK, Truro; and at the principal hotels at Truro and neighbouring towns of the Auctioneer; and at the place of sale.

JOHN WM. HAWKINS, Chief Clerk.

Dated this 19th day of January, 1875.

FREEHOLD ESTATE AND HEMATITE IRON MINES, AT PARKSIDE, FRIZINGTON, CUMBERLAND.

TO BE SOLD, BY PUBLIC AUCTION, at the Albion Hotel, King-street, Whitehaven, in the county of Cumberland, on Wednesday, the 27th day of January, 1875, at Three o'clock in the afternoon, all the ancient enclosed portions of the FREEHOLD ESTATE called PARKSIDE, in the township of Frizington, in the parish of Arlecdon, in the county of Cumberland, containing 19A. 3R. 22P. or thereabouts, now in the occupation of Mr. George Graham, as farmer; together with the valuable MINES and ROYALTIES of HEMATITE IRON ORE and LIMESTONE within and under the same, being portions of the mines known as

THE PARKSIDE MINES,

now in the occupation of the Parkside Mining Company, under a lease thereof, which will expire on the 26th day of June next.

These well-known and productive mines have been successfully worked by the present lessees for 20 years and upwards, and are still producing large quantities of the best Cumberland hematite ore. The royalty is surrounded by some of the most valuable iron mines in the district, and has only been partially explored, and affords an excellent opportunity for the profitable investment of capital.

The allotments of common belonging to the estate adjoining the Frizington Road, and containing 4A. 3R. 4P., are not included in the present sale.

The farmer will show the land.

The property will be offered for absolute sale in the usual way, but if not sold will then be offered on a lease for 1000 years, subject to royalty rents of 2s. per ton for all iron ore, and 2d. per ton for all limestone to be worked out of the estate.

The person offering the highest premium to be the lessee.

Conditions will be produced at the sale; and, in the meantime, further information may be had on application to Messrs. WILLIAM and ISAAC PORTER, Egremont; JOSEPH PORTER, Whitehaven; or at the offices of Messrs. LUMB and HOWSON, Whitehaven, where a plan of the property may be seen, and copy of conditions had before the sale.

JOHN FARQUHARSON, Auctioneer.

IRONSTONE,—ABOUT TWO HUNDRED AND NINETY ACRE may be LEASED, or probably PURCHASED at once. No agents need apply For particulars, write to MISS PEIRSON, Pickering.

TANK LOCOMOTIVES, double 9 in., cheap, strong, and well finished; portable ENGINES, from 4 to 30 horse power—always ready, or in a forward state, with or without winding or pumping gear; vertical ENGINES and BOILERS, of improved design.

Apply to— LEWIN, POOLE WORKS, DORSET.

MACHINERY AND MATERIALS, WITH THE SETT, FOR SALE AT SOUTH BEDFORD MINE,

Situate in the parish of TAVISTOCK, in the county of DEVON.

MR. W. NICHOLL has received instructions to SELL, BY PUBLIC AUCTION, on Tuesday, February 2nd, 1875, commencing at Twelve o'clock precisely, the whole of the undermentioned valuable

MACHINERY AND MATERIALS, WITH THE SETT.

Which comprises a very valuable piece of mineral ground, being surrounded by the rich mines of the Tavistock District, viz.:—Devon Great Consols, Gunnislake (Clitters), Wheal Russell, and others. It is a very extensive sett, and contains nine well-known lodes, which can be developed to any reasonable depth with the present water power, which is quite sufficient at all seasons for pumping, drawing, crushing, and other work. The MATERIALS consist of—

1 Water-wheel, 40 ft. diam., 5 ft. wide	2 sweep rods
1 ditto, 40 ft. diam., 4 ft. wide	2 winches
1 ditto, 22 ft. diam., 5 ft. wide	2 drawing machines
With iron axles and rings.	200 fathoms of steel wire rope
29 9 in. pumps	A quantity of sheaves, burs, bolts, staples, and glands
3 matchings	Whim kibbles
2 9 in. door pieces	4 tons of pulleys, taps, and dyes
2 9 in. windbores	1 ton of chain
2 8 in. working barrels	3 tram wagons
1 H piece and windbore to match	20 tons of useful iron
1 8-in. plunger pole, stuffing box and glands	Loops and brasses
4 shaft bobs	Shaft rolls
3 travelling bobs	Several sets of yokes
1 V bob	About 400 fathoms of launders, 4 ft. wide, and 1 ft. deep, with stands
100 fms. of 2¼ in. iron rods	9 cwts. new steel
Several tons of strapping plates and caps	Double and treble blocks
2 tons of railway iron	
42 fms. of 9 in. rods	

2 cranes, scales, stand and weights, hand screw; smiths' tools, consisting of 2 bellows, 2 vices, 2 anvils, tongs, screw stock, mandrill, cranes, &c.; a quantity of miners' tools, grinding stone, wood sheds, ladders, carpenters' bench, a quantity of bricks, 1000 feet of plank, new and old timber, account-house furniture, an excellent dial, &c.

The Auctioneer would beg to say that in consequence of the limited operations of the present company, this mine offers a rare opportunity for mining enterprise, and well worth the attention of capitalists and others to the above-named sett, being a very extensive one; the well-known Ding Dong lode traverse this sett a distance of one mile, and there has been £13,000 worth of mineral raised above the adit level, and nothing done below the same.

Refreshments at Twelve o'clock.

The above will be offered in One Lot, and, if not sold, will be immediately put up in Lots to suit the convenience of purchasers.

Any further particulars may be obtained by applying to Capt. BRAY, the Agent on the Mine; or to Mr. W. NICHOLL, Auctioneer and Valuer, Redruth.

PRELIMINARY ANNOUNCEMENT.

TO ENGINEERS, MINE AGENTS, AND OTHERS.

MR. SPRY will shortly SUBMIT TO PUBLIC COMPETITION, on WHEAL MARY ANN and TRELAWNY MINES, in the parish of MENHENIOT, near LISKEARD, CORNWALL:—

ONE 80 inch cylinder PUMPING ENGINE, 10 ft. 6 in. stroke, equal beam, with FOUR 10 ton BOILERS, brass well-work and fittings complete, not to be excelled in the county.

ONE 70 inch cylinder PUMPING ENGINE, 10 ft. stroke, equal beam, with FOUR 10 ton BOILERS and fittings complete.

ONE 45 inch cylinder PUMPING ENGINE, 7 feet stroke, with new well-work.

ONE 25 inch cylinder WINDING WHIM ENGINE, 7 ft. stroke, with ONE 8 ton BOILER, nearly new.

ONE 24 inch WINDING WHIM ENGINE, 6 ft. stroke, with TWO 8 ton BOILERS.

ONE 22 inch cylinder WINDING WHIM ENGINE, 5 ft. stroke, with ONE 8 ton BOILER, grinder and stamps (12 heads).

ONE 22 inch cylinder WINDING MAN ENGINE, 5 ft. stroke, with ONE 8 ton BOILER, considered the best man engine in the county.

FIVE WATER-WHEELS, varying from 25 ft. to 6 ft. diameter.

PITWORK (pumps 9 to 16 in.) and MATERIALS, in immense variety and quantity.

Further particulars will be advertised forthwith, and catalogues may soon afterwards be obtained of Mr. W. G. NETTLE, the Purser, Liskeard; or of the Auctioneer, Liskeard.—Dated January 12, 1875.

SEALED TENDERS FOR THE PURCHASE OF THE LEASES, MACHINERY, MINING IMPLEMENTS, STORES, and other EFFECTS of and in relation to

THE FLORENCE CONSOLS TIN MINES,

Near MARAZION, CORNWALL, as a going concern, to be taken over on and from 15th February, 1875, will be received until Monday, 1st February, 1875 (on account of the proprietor's failing health), addressed to the Proprietor, care of Capt. P Skewis, at the Account-house on the Mines, where every further information can be obtained, and the mines, machinery, &c., inspected.

The LEASES are as follows, viz.:—Florence sett, to run about 17½ years; Eliza's sett, 18½ years; Trevain sett, 18½ years; Acton sett, 20 years; an annual lease of common rights from Lord Falmouth; an annual lease of a shaft and levels from Mr. Hosking.

The MACHINERY consists of—ONE 70 in. extra strong Cornish PUMPING ENGINE, 10 ft. stroke in shaft, and 12 ft. in cylinder; TWO BOILERS, of 11 to 12 tons each, with all fittings complete, with all pitwork at Walter's shaft, now down to about 72 fms. and still sinking, and also 110 fms. flat rods (2¾ in. round iron) to Eliza's shaft, which is now down to about 78 fms. from surface, and still sinking—the pitwork of both shafts consists of about 170 fms. pumps, of 18, 15, 14, 9, and 7 in., with proportionate other parts, in complete working order; double winch; pulleys and stands; windbores and pole case; plunger poles; H pieces; top doors; pitch pine rods, and all usual requisites; 2 pair shears; balance bobs; 20 fms. or more 2½ in. bucket rods, &c.; ONE 30 in. Cornish ENGINE, and TWO BOILERS, of 10 and 11 tons, for pumping and stamping, with all working gear complete; 28 stamps, complete and at work; dressing floors and dressing houses; 5 round buddles; 2 powerful capstans; 150 fms. 14 in. capstan rope; several horse whims; a 20-horse power Clayton and Shuttleworth's double cylinder ENGINE and BOILER, for winding and driving; new kibbles; about 320 fms. wire rope; about 250 fms. chain, large and small; about 220 fms. ladders, with iron staves; cart and wagon, weighing machine, and house; a revolving calciner, considered equal to roasting about 40 tons of ore per month; fittings of account house, assay house, drying house, and smiths' shop; carpenters' shed and tool house; together with all other extra mining materials, stores, &c., about or in the mines.

The tenders are to state the sum proposed to be paid and the terms of proposed payment, and one-fifth of the amount must be paid as a deposit within three days after notice has been given of tender being accepted, and must also state the willingness of the party tendering to sign at the same time an agreement, if needful to be drawn up by vendor's solicitor to complete purchase accordingly.

It is the intention of the proprietor, subject to the amount offered being considered sufficient to cover the value of the machinery and other effects, the consent of the lords, and the approval of his solicitors as to the terms proposed, to accept of the highest tender.

Should a suitable company be formed for the purchase and working of the mines the vendor will be very willing to join therein.

LAST DAY FOR RECEIVING TENDERS, FEB. 1, 1875.

THE FLORENCE CONSOLS TIN MINES.

IN ORDER TO AFFORD EVERY FACILITY TO INTENDING PURCHASERS for DETERMINING the AMOUNT and TERMS of their TENDERS, the Proprietor has had a complete INVENTORY made of the PLANT, &c., on the mine.

INVENTORY.

The MACHINERY consists of—

1. One 70 in. extra strong Cornish pumping ENGINE, 10 ft. stroke in shaft, and 12 ft. in cylinder; 2 boilers, of 11 to 12 tons; and balance bob, with all fittings complete, covered in under slate roof.
2. A powerful 12 arm capstan, new.
3. 10 fms. of 9 in. drawing lift.
4. 20 fms. of 18 in. plunger lift.
5. 16 in. pole, stuffing box, and glands, complete.
6. 40 fms. of 11 in. plunger lift, with pole complete.
7. 70 fms. of pitch pine rods, 15 in. and 14 in. square.
8. 150 fms. of 14 in. capstan rope.
9. A large shears, and sheaves, new.
10. 100 fms. of flat rods, 2¾ in. round iron.
11. 32 fms. 1¾ in. iron rods.
12. From 17 to 18 fms. of 2⅝ in. iron rods.
13. A spare 14 ft. 18 in. pole, with stuffing box and glands, complete.
14. A spare 10 fms. 18 in. drawing lift, with bucket, 17 in., and bucket rods, complete.
15. 5 fms. 3 ft. of 10 in. pumps.
16. 1 18 in. sinking windbore, new.
17. 370 fms. of iron stave ladders.
18. A double winch.
19. Pulleys and stands.
20. 200 fms. of 11 in. launders.
21. 1 20-horse power Clayton and Shuttleworth's double cylinder ENGINE and boiler, for winding and driving, with 600 fms. of wire steel rope, new; 3 kibbles, old and new, and 120 fms. of chain runners attached; 120 fms. of pulleys and stands; and wooden house to protect engine, &c.

ELIZA'S SHAFT.

22. 8 arm capstan, with 100 fms. of capstan chain, ¾ in.
23. Balance bob.
24. A shears and sheaves, complete.
25. 50 fms. of 7 in. wood rods.
26. 26 fms. of 3 in. iron rods.
27. 16 fms. of 15 in. drawing lift.
28. 10 fms. of 15 in. drawing lift, with rods; and 25 fms. of ⅞ in. chain, rods and pulleys, complete.
29. 10 fms. of 10 in. spare pitwork.
30. 40 fms. of 7 in. plunger lift, stuffing box and pole, complete, spare.
41. A smiths' shop, 2 bellows, anvils, and smiths' tools, with a lot of new and old iron.
42. A carpenters' shed and tool house, together with all extra mining materials, stores, &c.
43. A miners' drying house, with tube and fire doors, complete, almost new.
44. Assay house, assaying materials.
45. Powder house, about 500 lbs. powder.
46. 50 fms. of zinc air pipes, and a quantity of wooden air pipes.
47. 1 30 in. Cornish ENGINE, two boilers of 10 and 11 tons, for pumping and stamping, with all working gear, complete, covered in, and under slate roof.
48. 28 stamps, complete.
49. Dressing floors, dressing house, 5 round buddles, and dressing materials.
50. A 14 ft. bed revolving calciner.
51. Account house furniture, and various sundries and stores in use.
52. A weighing machine, to weigh 8 tons.
53. 100 fms. of hemp falls, and a quantity of other stores.
54. 3 horse whims.
55. A quantity of horse whim chain.
56. Material house, and a quantity of stores.
57. 2 large water barrels.

Particulars as to terms of payment which will be accepted, and transfer of the property, is given in the preceding advertisement.

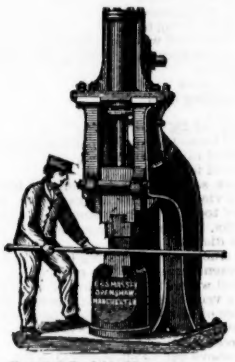
B. & S. MASSEY, OPENSHAW, MANCHESTER.

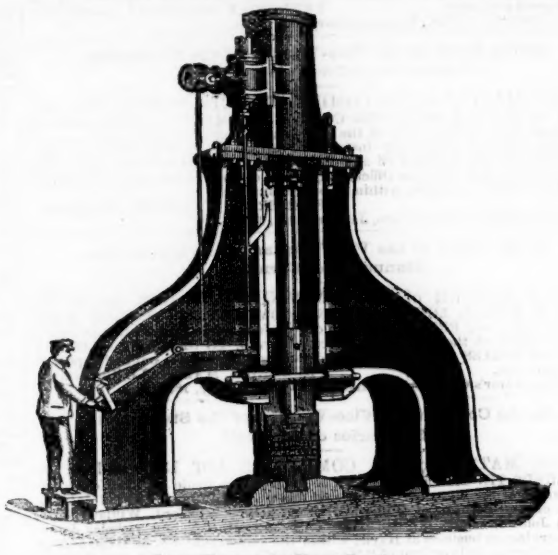
PRIZE MEDALS AWARDED:—Paris, 1867 Havre, 1868; Highland Society, 1870; Liverpool, 1871; Moscow, 1872; Vienna, 1873.

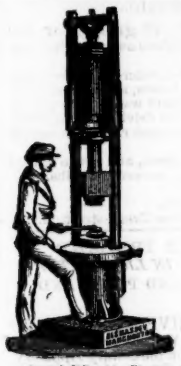
Patentees and Makers of **Double** and **Single-acting STEAM HAMMERS** of all sizes, from ½ cwt. to 20 tons, with self-acting or hand motions, in either case giving a perfectly **DEAD BLOW**, while the former may be worked by hand when desired. **Large Hammers**, with **Improved Framing**, in **Cast** or **Wrought Iron. Small Hammers**, working up to 500 blows per minute, in some cases being **worked by the Foot** of the Smith, and not requiring any separate Driver.

SPECIAL STEAM STAMPS, of great importance for Forging, Stamping, Punching, Bolt-making, Bending, &c.
STEAM HAMMERS for Engineers, Machinists, Shipbuilders, Steel Tilters, Millwrights, Coppersmiths, Railway Carriage and Wagon Builders, Colliery Proprietors, Ship Smiths, Bolt Makers, Cutlers, File Makers, Spindle and Flyer Makers, Spade Makers, Locomotive and other Wheel Makers, &c.; also for Use in Repairing Smithies of Mills and Works of all kinds; for straightening Bars, bending Cranks breaking Pig-iron, &c.


Small Hammer with Foot Motion.


General Smithy Hammer.


Steam Hammer for Heavy Forging.


Special Steam Stamp.


General Smithy Hammer.

From 60 to 100 Steam Hammers and Steam Stamps may usually be seen in construction at the Works.

BARROWS & STEWART,

ENGINEERS, BANBURY,

MANUFACTURE

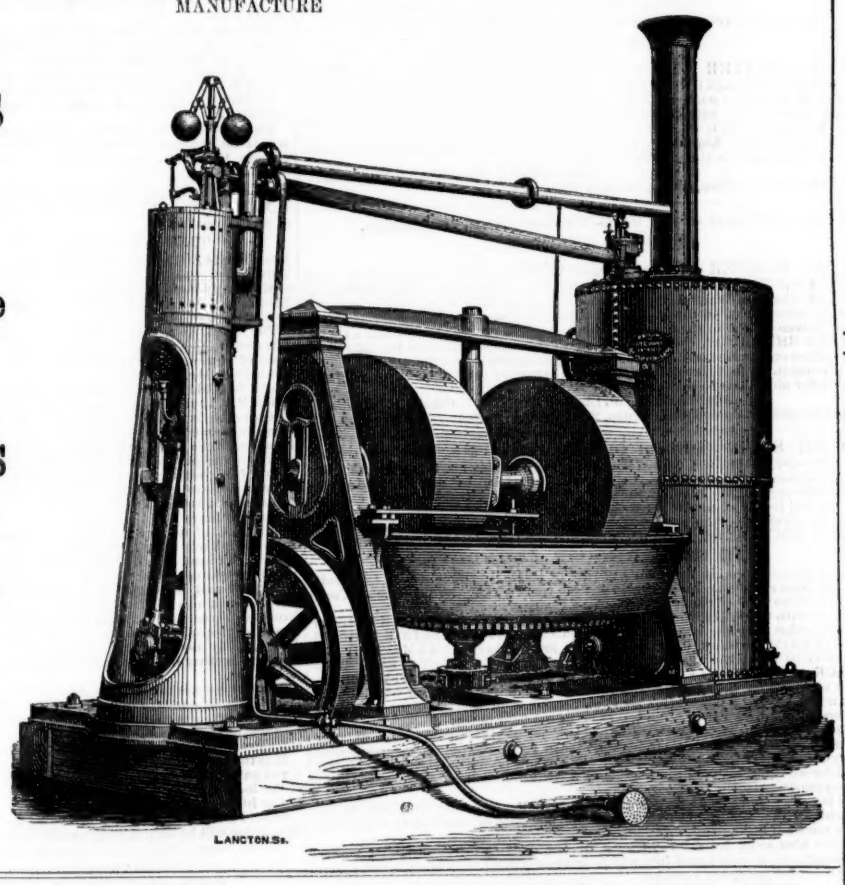
PORTABLE

Steam Engines

With Gear for Winding, Pumping, and Ore Crushing.

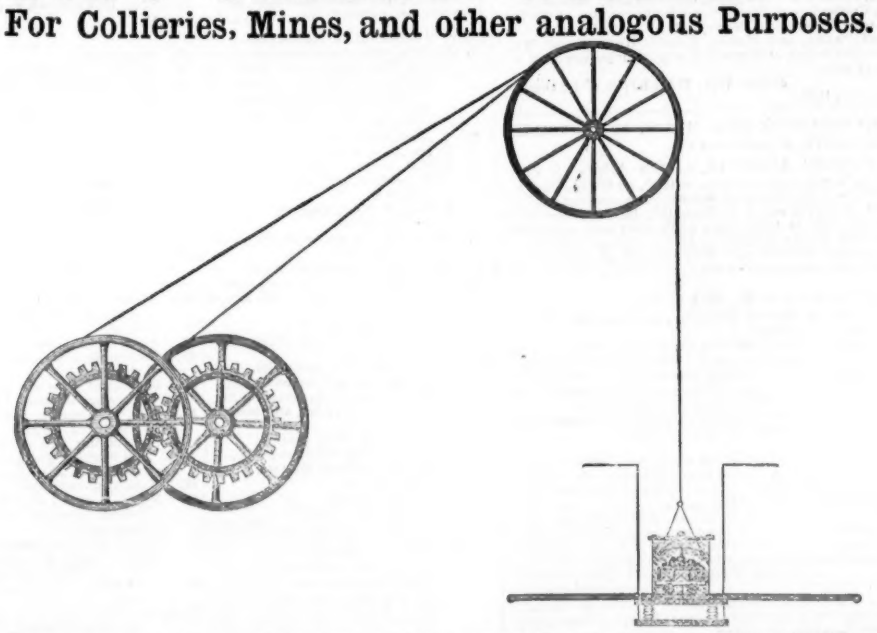
ALSO,

COMBINED MILLS and ENGINES, with or without BOILERS, for Grinding Cinders, Sand, Mortar, &c.



WILSON'S PATENT WINDING GEAR,

For Collieries, Mines, and other analogous Purposes.



The ADVANTAGES of this Patent is to ECONOMISE the WEAR and TEAR of the ROPES and MACHINERY used in drawing or lowering weights in Mines, or any other similar purposes.

At a mere nominal cost this patent can be applied to any or every Mine now in operation, while its application to any new plant will scarcely make any difference in time or cost.

Applications for Licence to use the said Invention can be made to the Patentee,—

R. WILSON, PHŒNIX WORKS, ROTHERHAM.

Full particulars on application can be had as to terms, drawings, &c., &c.

TO COLLIERY PROPRIETORS, MINING ENGINEERS, &c.

HADFIELD'S Steel Colliery Wheels

WITH

PATENT FITTED AXLES AND PEDESTALS.

Also, Hydraulic Cylinders, Pinions, Ship-propellers, Railway Crossings, Skifes for Ploughs, &c.

Also, Cross-heads, Axle-boxes, Horn-blocks, Plough-shares, Cultivators, Reaping Machine Fingers, &c.

Hadfield's Steel Foundry Company,

MANUFACTURERS OF EVERY DESCRIPTION OF

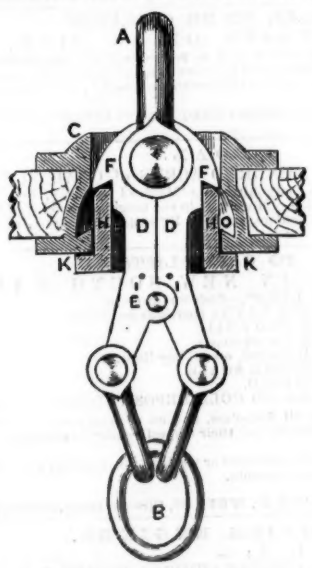
CRUCIBLE CAST STEEL CASTINGS,

ATTERCLIFFE, SHEFFIELD.

OVERWINDING IMPOSSIBLE.

WALKER'S DETACHING HOOK,

FOR COLLIERIES AND BLAST-FURNACE HOISTS.



SIX LIVES SAVED.

Walker's Hook, at Tockett's sinking, has saved six men's lives On the 6th instant, the kibble was overwound, and but for the hook would have fallen down the pit, where six men were working, 120 ft. below, all of whom would probably have been killed. Thanks, however, to Mr. Walker's invention, the rope alone passed harmlessly over, the kibble remained suspended, and in half-an-hour everything was working as if nothing had occurred.—From the *Northern Echo* August 20. 1874.

Full particulars may be obtained from the Manufacturers,—

THOMAS WALKER & SON,

58, OXFORD STREET, BIRMINGHAM.

BENNETTS' SAFETY FUSE WORKS,

ROSKEAR, CAMBORNE, CORNWALL.

BLASTING FUSE FOR MINING AND ENGINEERING PURPOSES,

Suitable for wet or dry ground, and effective in Tropical or Polar Climates.

W. BENNETTS, having had many years experience as chief engineer with Messrs. Bickford, Smith, and Co., is now enabled to offer Fuse of every variety of his own manufacture, of best quality, and at moderate prices.

Price Lists and Sample Cards may be had on application at the above address.

LONDON OFFICE,—H. HUGHES, Esq., 65, GRACECHURCH STREET.

DYNAMITE

FOR BLASTING PURPOSES, can now be supplied in packages, containing 50 lbs. each, for export to any part of the World.

Nobel's Dynamite, or Safety Giant Blasting Powder,

Is the CHEAPEST and MOST POWERFUL EXPLOSIVE for every kind of MINING and QUARRYING OPERATIONS; for blasting in hard or soft, wet or dry ROCKS; for clearing land of TREE ROOTS and BOULDER STONES; for rending massive BLOCKS of METAL; for SUBAQUEOUS and TORPEDO purposes; and for recovering or clearing away of WRECKS, &c.

ITS SAFETY is evidenced by the total ABSENCE OF ACCIDENTS in transit and storage; it is insensible to heavy shocks, its GIANT POWER being only fully developed when fired with a powerful percussion detonator, and hence its great safety.

As a **SUBSTITUTE FOR GUNPOWDER** its advantages are the GREAT SAVING OF LABOUR, rapidity and INCREASE OF WORK done, FEWER and smaller BORE-HOLES required, greater depth blasted, safety in use, NO DANGER FROM TAMPING, absence of smoke, unaffected by damp, &c.

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London Export Office, 85, GRACECHURCH STREET, LONDON, E.C.

THE DARLINGTON ROCK BORER.

PATENTED IN GREAT BRITAIN, PRUSSIA, FRANCE, AND VARIOUS CONTINENTAL COUNTRIES.

Makes 300 to 1000 Blows per Minute, as may be required, without Valve or Complicated Gear.

DRIVEN WITH STEAM OR COMPRESSED AIR.

SPECIALLY SUITABLE FOR RAILWAY, QUARRY, AND MINE WORK.

For price and particulars, apply to—

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MINING MACHINERY AND TOOLS.

THE TUCKINGMILL FOUNDRY COMPANY,

85, GRACECHURCH STREET, LONDON, E.C. WORKS: TUCKINGMILL.

MANUFACTURERS of every description of MINING MACHINERY, TOOLS, MILLWORK, PUMPING, WINDING, & STAMPING ENGINES.

SOLE MAKERS OF

BORLASE'S PATENT ORE-DRESSING MACHINES AND PULVERISERS.

PRICE LISTS CAN BE HAD ON APPLICATION, AND

SPECIAL QUOTATIONS WILL BE GIVEN UPON INDENTS AND SPECIFICATIONS.

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TUCKINGMILL, CORNWALL, AND 85, GRACECHURCH STREET, LONDON, E.C.

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(Late of the Firm of HODGSON and STEAD),

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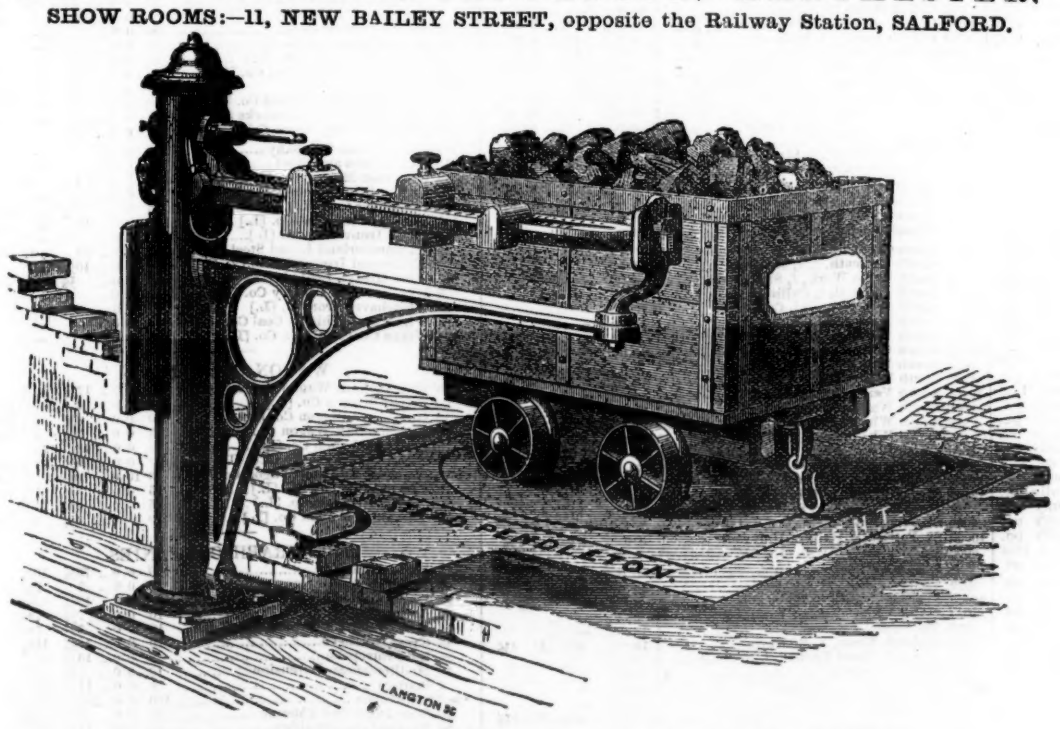
AND ALL DESCRIPTIONS OF WEIGHING PLANT FOR ALL NATIONS.

GLOBE FOUNDRY, PENDLETON, MANCHESTER.

SHOW ROOMS:—11, NEW BAILEY STREET, opposite the Railway Station, SALFORD.



NEW PATENT WEIGHING MACHINES, specially for Mining Uses.

Globe Foundry is One Minute's Walk from the Pendleton 'Bus Office, and Four Minutes' from Pendleton Railway Station.

VARLEY & YEADON, COLLIERY & BRICK-MAKING ENGINEERS,

Manufacturers of WINDING, HAULING, and PUMPING ENGINES, Boilers and Fittings, Steam Piping, Donkey Pumps, Lift Pumps, Perforated Clay and Mortar Mills, Brick Presses, Pug Mills, Round and Flat Rope, Pit-head Pulleys, Wrought-iron Head Gear, ROOFS and GIRDERS, Kibbles, ONE, TWO, and THREE-DECK CAGES, COAL TIPPING and SCREENING APPARATUS, VENTILATING FANS, TUBBING, GIRDERS, PILLARS, POINT PLATES. Steam or other Cranes, Crabs and Windlasses, Machines for Cutting Stone, &c.

CROWN POINT FOUNDRY, LEEDS.

Estimates furnished on application.

LOCOMOTIVE TANK ENGINES

FOR MAIN LINE TRAFFIC, SHORT LINES, COLLIERIES, CONTRACTORS, IRONWORKS, MANUFACTORIES, &c., from a superior specification, equal to their first-class Railway Engines, and specially adapted to sharpcurves and heavy gradients, may always be had at a short notice from—

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LOCOMOTIVE, MARINE, AND STATIONARY ENGINE WORKS,

GATESHEAD-ON-TYNE.

RAILWAY CARRIAGE COMPANY (LIMITED).—ESTABLISHED 1847.

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MANUFACTURERS of RAILWAY CARRIAGES and WAGONS, and EVERY DESCRIPTION of IRONWORK.

Passenger carriages and wagons built, either for cash or for payment, over a period of years.

RAILWAY WAGONS FOR HIRE.

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THE BIRMINGHAM WAGON COMPANY (LIMITED) MANUFACTURE RAILWAY WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract.

EDMUND FOWLER, Sec.

WAGON WORKS,—SMETHWICK, BIRMINGHAM.

*** Loans received on Debenture; particulars on application.

THE PATENT SELF-ACTING MINERAL DRESSING MACHINE COMPANY (LIMITED).

T. CURRIE GREGORY, C.E., F.G.S.

OFFICES,—150, ST. VINCENT STREET, GLASGOW.

IMPORTANT NOTICE TO MINE PROPRIETORS.

This company grant licenses, under their patents, for the use, singly or in combination, of the most approved machinery for dressing ores, comprising Stamps Jiggers, Classifiers, and Buddles.

MR. GEORGE GREEN, Mechanical Engineer to the above Company, SUPPLIES MACHINES under the above Company's Patents for DRESSING all METALLIC ORES. Dressing-floors having these Machines possess the following advantages:—

1.—They are cheaper than any other kind in first outlay.
2.—From 60 to 70 per cent. of the labour is saved.
3.—Only about one-fourth of the space usually occupied by dressing-floors is required.
4.—The ore is made clean at one operation, and 5 per cent. of ores otherwise lost is saved.

Drawings, specifications, and estimates will be forwarded on application to—

GEORGE GREEN, M.E., ABERYSTWITH, SOUTH WALES.

EXTRACTS FROM TESTIMONIALS RECEIVED:—

Mr. C. E. BAINBRIDGE, of the London Company's Mines, Middleton-in-Teesdale, by Darlington, writing on the 27th September, 1873, says—"After a full season's experience of the very complete Dressing Machine erected by you at our Colberry Mines, we are fully satisfied with our decision to adopt your patents in preference to all others. The machinery does its work as well as we can desire, and better than we anticipated. We are now getting through 70 tons of orestuff per day, of rich quality. Without your machinery we should have been at a standstill, for we cannot get hands to supply our wants elsewhere. It saves fully one-half of the old wages, and vastly more on the wages we now give, and the saving in ore is not much short of 10 per cent. You can quote from this letter as you think proper."

Mr. COULTAS DODSWORTH, of Haydon Bridge, writes, on the 15th January, 1874:—"I have just returned from the Stonecroft and Greyside Mines, where I have seen your 'Patent Ore Dressing Machinery' at work, with which I must say, I was highly pleased. It is decidedly the best machinery I have ever seen for the purpose, the results being as near perfection as possible, and I am quite sure its use in this case will be a very great saving to the company. No large mining establishment should be without your machinery, especially when labour is difficult to procure—a mere fraction of the hands being only required as against the old system, and the work altogether much better done, and a great saving of ore effected. I have heard it said that your machinery is better adapted for poor than for rich ores, but from what I have seen to-day I am quite confident it will do for any kind of ores. I beg not only to congratulate, but also to compliment, you on the great success of your 'Patent Ore Dressing Machinery.' You may use this letter as you think proper."

Mr. MONTAGUE BEALE, Managing Director of the Cagliara Mining Company (Limited), says, on May 15th, 1873:—"I have much pleasure in speaking of the great efficiency of your 'Patent Dressing Machinery,' as erected by you at our mines at Rosas, in the Island of Sardinia. You will remember it has always been considered impossible to dress, or rather separate, the minerals our ores contain by machinery, but our captain assures me he gets a constant return of 76 per cent. of lead with the greatest ease, and I know by the returns we are realising the best market price. I consider this company is much indebted to you for the success you have achieved at so small cost. It may interest you to know, from my experience in several of the British possessions, including the whole of the Australian Colonies, that my opinion is I have never seen any dressing machinery that can efficiently, and at so small a cost, dress, and separate metallic ores, however close the mechanical mixture may be, as yours. You can use this letter in any way you like."

The most satisfactory testimonials also have been received from the GREENSIDE MINE COMPANY, Westmoreland: the TALARGOCH MINING COMPANY, North Wales, and others. Copies of these may be had from Mr. GREEN.

Second Edition. Just published, price 8s. 6d.

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OR, MILL-MANAGERS' AND STOCK-TAKERS' ASSISTANT;

Comprising a Series of New and Comprehensive Tables, practically arranged to show at one view the Weight of Iron required to produce Boiler plates, Sheet-iron, and Flat, Square, and Round Bars, as well as Hoop or Strip Iron of any dimensions. To which is added a variety of Tables for the convenience of Merchants' including a Russian Table. BY JAMES ROSE,

Batman's Hill Ironworks, Bradley, near Bilston.

OPINIONS OF THE PRESS.

"The Tables are plainly laid down, and the information desired can be instantaneously obtained."—*Mining Journal.*

"The work is the result of much labour, and is decidedly valuabl"—*Engineer.*

"By its use many hours time spent in tedious calculations will be saved and many very serious errors avoided."—*Wolverhampton Chronicle.*

London: MINING JOURNAL Office, 26, Fleet-street; and to be had of all booksellers.

INVESTMENTS IN MINES ARRANGED FOR CAPITALISTS.

Now ready, price 3s., by post 3s. 3d., Fifth Edition; Fifteenth Thousand Copies, much improved, and enlarged to nearly 300 pages.

HOPTON'S CONVERSATIONS ON MINES, between Father and Son. The additions to the work are near 80 pages of useful information, principally questions and answers, with a view to assist applicants intending to pass an examination as mine managers, together with tables, rules of measurement, and other information on the moving and propelling power of ventilation, a subject which has caused so much controversy.

The following few testimonials, out of hundreds in Mr. Hopton's possession speak to the value of the work:—

"The book cannot fail to be well received by all connected with collieries."—*Mining Journal.*

"Such a work, well understood by miners, would do more to prevent colliery accidents than an army of inspectors."—*Colliery Guardian.*

"Its contents are really valuable to the miners of this country."—*Miners Conference.*

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"The work is repleteon the subject of underground management."—M. BANKS Colliery Proprietor.

'I have had 20 years' management. It is the best work I ever read, and deserves to be circulated in every colliery district."—JOS. EAMES.

"900 copies have been ordered in Wigan alone, and this is but a tithe of those to whom the book should commend itself."—*Wigan Examiner.*

To be had on application at the MINING JOURNAL Office, 26, Fleet-street, London.

MINING PROSPECTUSES AND ANNOUNCEMENTS OF PUBLIC COMPANIES should be inserted in the BARNSTAPLE TIMES, published every Tuesday, and in the DEVON POST, published every Saturday, as these papers circulate largely throughout Devon and Cornwall, where many thousands of investors reside. Legal and Public Companies' advertisements, 6d. a line each insertion; Trade and Auctions, 4d. a line; Wanteds, &c., 20 words, 1s.

Published by J. B. JONES, Boutport-street, Barnstaple, Devon to whom all orders, by post or telegraph should be sent.

DER HAARSCHWUND—(The dying away of the hair, called foxes's evil).—Medical adviser in all diseases of the hair and of the pericranium, about 130 pages of German text, will be sent, post-paid and gratis, on pre-paid application by Mr. EDMUND BUHLIGEN, Villa Bühligen, in Gohlis, near Leipzig (Germany).

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GUIDE TO HEALTH; or, ADVICE AND INSTRUCTIONS FOR THE CURE OF NERVOUS DEBILITY.—A New Medical Work on the Treatment of Local Debility, Consumption, Loss of Memory, Physical Depression, Indigestion, and all diseases resulting from loss of nerve power. Illustrated with cases and testimonials. Sent free for two stamps.—Dr. SMITH will, for the benefit of country patients, on receiving a description of their case, send a confidential letter of advice.—Address, Dr. H. SMITH, 8 Burton crescent, London, W.C.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares	Mines	Paid	Last Pr.	Clos. Pr.	Total divs.	Per share	Last paid
1500	Alderley Edge, c, Cheshire*	10 0 0	—		12 1 8	0 5 0	Apr. 1874
30000	Bampfylde, c, i, mn., Devon*	1 0 0	5¼	5¾ 5⅝	0 2 0	0 2 6	June 1873
5500	Blaen Caelan, s-l, Cardigan* (£4 sh.)	3 10 0	—		0 10 9	—	—
200	Botallack, t, c, St. Just§	116 5 0	50	47½ 50	619 15 0	5 0 0	Aug. 1872
10000	Bronfloyd,*† s-l, Cardigan	1 7 6	—	2¼ 2½	2 2 0	0 0 6	Jan. 1872
4000	Brookwood, c, Buckfastleigh	1 16 0	4	3¼ 4	3 2 6	0 4 0	Nov. 1874
3348	Cargoll, s-l, Newlyn§	5 4 5	1	¾ 1	4 16 3	0 12 6	Oct. 1872
6400	Cashwell, l, Cumberland*	2 10 0	—		1 6 6	0 2 6	Aug. 1873
1000	Carn Brea, c, t, Illogan†	35 0 0	63	55 60	308 0 0	1 0 0	Feb. 1874
6000	Cath. & Jane, l,* Penrhyndendraeth	5 0 0	—		0 7 6	0 7 6	June 1873
2450	Cook's Kitchen, t, Illogan†§	20 4 9	10	9 9½	11 17 0	0 7 6	Jan. 1873
10240	Devon Gt. Consols, c, Tavistock†* §	1 0 0	2¼	1¾ 2	116 10 0	0 12 0	May 1872
4296	Dolcoath, c, t, Camborne	10 14 10	52½	50 52½	105 16 8	0 12 6	Dec. 1874
6500	Drake Walls, t, c, Calstock	5 0 0	—		0 2 0	0 2 0	July 1874
10000	East Balleswidden, t, Sancreed*	1 0 0	—		0 2 11	0 0 5	Feb. 1874
6144	East Caradon, c, St. Cleer†	2 14 6	1¼	1 1⅛	14 19 0	0 2 0	Oct. 1872
300	East Darren, l, Cardiganshire	32 0 0	—		224 10 0	1 0 0	Oct. 1874
6400	East Pool, t, c, Illogan	0 9 9	14	13 13½	13 11 3	0 2 6	May 1873
1906	East Wheal Lovell, t, Wendron*‡	5 19 0	8	7¼ 7¾	20 7 6	0 7 6	Oct. 1874
5000	Exmouth, s-l, Christow	0 7 6	—		0 1 0	0 1 0	May 1873
2800	Foxdale, l, Isle of Man*†	25 0 0	—		80 15 0	0 10 0	Sept. 1872
45000	Glasgow Cara., c* [30,000 £1 p., 10,000 15s. p.]		1½	1¾ 1⅝	8 7 4	0 1 6	Jan. 1875
15000	Great Laxey, l, Isle of Man*	4 0 0	11	10½ 11	17 9 0	0 6 0	Jan. 1875
25000	Great West Van, t, Cardigan*	2 0 0	⅛	⅛ ⅛	0 2 0	0 1 0	Aug. 1874
5908	Great Wheal Vor, t, c, Helston†§	40 15 0	⅜	¼ ⅜	15 19 6	0 2 6	June 1872
6400	Green Hurth, l, Durham*	0 6 0	5½	5 5¼	1 12 0	0 4 0	Oct. 1874
20000	Grogwinion, l, Cardigan*	2 0 0	3⅜	3 3¼	0 2 0	0 1 4	Dec. 1874
10240	Gunnislake (Clitters'), t, c	5 5 0	2	1¾ 2	0 1 0	0 1 0	Nov. 1874
1024	Herodsfoot, l, near Liskeard†	8 10 0	4	3¼ 3¾	62 5 0	0 15 0	Oct. 1872
18000	Hingston Downs, c, Calstock*† (£1 sh.)	2 5 0	1¼	1 1¼	4 3 0	0 5 0	Dec. 1872
25000	Killaloe, sl, Tipperary	1 0 0	—		0 3 11½	0 0 6	Mar. 1873
400	Lisburne, l, Cardiganshire	18 15 0	—		564 10 0	1 0 0	July 1874
5120	Lovell, t, Wendron	0 10 0	—		0 17 6	0 1 6	Jan. 1874
11000	Melindur Valley, l, Cardigan*	2 0 0	3¼	3 3¼	0 7 2	0 3 7	Jan. 1875
9000	Minera Mining Co., l, Wrexham*	5 0 0	7½	5 7½	63 15 2	0 2 0	Nov. 1874
30000	Mining Co. of Ireland, cl, c, l*	7 0 0	—		0 8 0	0 3 6	July 1872
12000	North Hendre, l, Wales	2 10 0	—		0 17 6	0 2 6	Oct. 1874
2000	North Levant, t, c, St. Just§	12 2 0	5½	4 5	4 13 0	0 12 0	Sept. 1873
7000	Old Treburgett,* s-l, ordinary shares	1 0 0	—		0 0 9	0 0 9	Feb. 1874
9000	Old Treburgett,* s-l (10 per ct. pref.)	0 10 0	⅜	⅜ ⅜	0 0 10½	0 0 10½	Feb. 1874
5694	Pedn-an-drea, t, Redruth§	9 2 0	7½	7 7½	0 5 0	0 5 0	Nov. 1871
5000	Penhalls, t, St. Agnes	3 0 0	2¼	2 2¼	3 9 6	0 2 6	Jan. 1875
50000	Penstruthal, t, c, Gwennap	2 0 0	¾	⅝ ¾	0 2 0	0 1 0	Nov. 1874
6000	Phœnix, t, c, Linkinhorne§	4 13 4	4	4 4½	39 19 10	0 4 0	Nov. 1872
1772	Polberro, t, St. Agnes	15 0 0	—		1 12 6	0 5 0	Mar. 1872
18000	Prince Patrick,* s-l, Holywell	1 0 0	3¼	3 3¼	0 9 0	0 2 0	Jan. 1875
1120	Providence, t, Lelant†§	16 16 7	5	5 5½	104 12 6	0 10 0	Sept. 1872
2000	Queens, s-l, Holywell*	2 0 0	—		0 2 0	0 2 0	Sept. 1874
12000	Roman Gravels, l, Salop*	7 10 0	13	12 12½	4 10 6	0 8 6	Dec. 1874
10000	Shelton, cl, t, St. Austell	1 0 0	—		0 1 0	0 1 0	Feb. 1872
512	South Caradon, c, St. Cleer	1 5 0	140		719 0 0	2 0 0	Dec. 1874
5000	South Carn Brea, c, t, Illogan§	2 1 6	1⅜	1¼ 1⅜	0 10 0	0 2 6	July 1872
6000	South Darren, l, Cardigan*	3 6 6	—		1 1 6	0 1 6	Nov. 1870
10000	So. Pr. Patrick,* s-l (8000 sh. issued)	1 0 0	2½	2 2½	0 2 0	0 2 0	Oct. 1874
8771	St. Just Amalgamated, t*	3 10 0	—		0 9 0	0 4 0	Nov. 1871
12000	Tankerville, l, Salop*	6 0 0	10	9¾ 10¼	3 8 0	0 6 0	Feb. 1873
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	32	28 30	47 13 6	0 5 0	Nov. 1874
15000	Tretoil,* t, i, Bodmin	2 0 0	—		0 1 6	0 1 0	Mar. 1874
4000	Trumpet Consols, t, Helston§	7 10 0	2	⅞ 1⅛	9 11 0	0 10 0	Nov. 1872
15000	Van, l, Llanidloes*	4 5 0	23 xd	21 22 xd	13 19 6	0 10 0	Dec. 1874
3800	W. Chiverton, l, Perranzabuloe†§	11 10 0	2	1⅞ 2⅛	52 10 0	0 5 0	June 1873
512	West Tolgus, c, Redruth	98 0 0	67½	65 67½	8 10 0	1 5 0	Dec. 1874
2048	West Wheal Frances, t, Illogan	27 3 9	10½	9½ 10½	3 12 6	0 5 0	Oct. 1872
512	Wheal Basset, c, Illogan†	5 2 6	21	20 25	638 10 0	1 10 0	Aug. 1872
2048	Wheal Jane, t, Kea	2 13 10	5¼	5 5¼	11 0 0	1 0 0	Dec. 1874
4295	Wheal Kitty, t, St. Agnes	5 4 6	6	5¾ 6	11 19 6	0 2 6	Dec. 1874
896	Wheal Margaret, t, Uny Lelant§	15 17 6	—		82 2 3	0 10 0	May 1872
80	Wheal Owles, t, St. Just§	76 5 0	80	75 80	522 10 0	4 0 0	Aug. 1872
6000	Wheal Prussia, t, Redruth	2 0 0	4⅛	4⅜ 4⅝	0 1 0	0 1 0	Dec. 1874
12000	Wheal Russell, c, Tavistock	1 0 0	—		0 3 3	0 0 6	Nov. 1874
10000	Wheal Whisper, t, c, Warleggan*	1 0 0	—		0 1 6	0 0 6	May 1873
25000	Wicklow c, sul, i, Wicklow	2 10 0	—		52 9 0	0 2 6	Mar. 1872

FOREIGN DIVIDEND MINES.

Shares	Mines	Paid	Last Pr.	Clos. Pr.	Total divs.	Per share	Last paid
35500	Alamillos, l, Spain*†	2 0 0	2	1¾ 2	1 5 9	0 2 0	Sept. 1874
30000	Almada and Tirito Consol., s*†	1 0 0	¾	⅝ ⅞	0 4 3	0 1 0	May 1873
20000	Australian, c, South Australia†	7 7 6	1¼	1½ 1¾	0 13 6	0 2 0	Aug. 1874
10000	Battle Mountain,* c, (6240 part pd.)	5 0 0	—		0 10 0	0 10 0	Nov. 1872
15000	Birdseye Creek, g, California*	4 0 0	2⅞	3 3¼	0 14 0	0 2 6	June 1874
6000	Bensberg, l, Germany*	10 0 0	—		0 17 4	0 8 0	July 1873
12320	Burra Burra,* c, So. Australia	5 0 0	—		56 0 0	0 10 0	Oct. 1872
20000	Cape Copper Mining,*† So. Africa	7 0 0	31	30½ 31	18 15 0	1 0 0	Dec. 1874
40000	Cedar Creek, g, California*	5 0 0	1⅝	1¼ 1⅜	0 5 0	0 2 6	June 1873
30000	Central American Association*†	0 16 6	—		0 6 0	0 1 0	July 1869
15000	Chicago, s, Utah*	10 0 0	—		1 0 0	0 4 0	Oct. 1874
21000	Colorado Terrible, s-l, Colorado*†	5 0 0	4½	3¾ 4	0 13 6	0 4 0	Jan. 1875
76162	Don Pedro North del Rey*†	0 16 0	⅜	⅛ ⅜	2 5 9	0 2 0	Mar. 1872
23500	Eberhardt and Aurora, s, Nevada*†	10 0 0	5¾	4¾ 5¼	1 0 0	1 0 0	July 1871
2352	Eldorado, g, Nova Scotia*	10 0 0	—		2 5 0	0 15 0	June 1873
60000	Emma,* g, s, Utah (25,000 fully pd.)	20 0 0	1⅛	1¼ 1¾	8 12 0	0 6 0	Dec. 1872
70000	English and Australian, c† S. Aust.	2 10 0	2	1¾ 2	2 7 3	0 2 6	Mar. 1873
15000	Ferguson, g, California*	2 0 0	—		0 3 0	0 3 0	April 1872
30000	Flagstaff, s, Utah*	10 0 0	2⅞	2¼ 2⅜	4 2 0	0 5 0	July 1873
25000	Fortuna, l, Spain*†	2 0 0	5	4½ 5	4 6 10	0 2 6	Sept. 1874
30000	Gold Run, hyd.	1 0 0	⅝	½ ¾	0 2 4	0 0 4	Oct. 1872
68000	Kapunda Mining Co. Australia†	1 3 0	¼	⅛ ¼	0 2 4	0 0 6	June 1873
20000	Last Chance, s,* Utah	5 0 0	1⅛	1 1¼	0 14 0	0 2 0	July 1873
15000	Linares, l, Spain*†	3 0 0	4½	4 4½	14 14 2	0 3 4	Sept. 1874
7837	Lusitanian, Portugal*† (£5 shares)	3 10 0	1¼	¾ 1¼	1 11 6	0 1 6	Mar. 1873
15000	Mammoth Copperopolis of Utah, c, s	10 0 0	—		0 5 0	0 5 0	Dec. 1872
5000	Mountain Chief, s, Utah*	10 0 0	—		0 4 0	0 4 0	Jan. 1873
18000	Prussian Mining & Ironworks, cl, i.	30 0 0	—		6 0 0	3 0 0	July 1873
10000	Pontgibaud, s-l, France†	20 0 0	20	18 20	15 16 8	0 19 9	June 1874
100000	Port Phillip, g, Clunes*†	1 0 0	1	¾ 1	1 8 0	0 1 0	Jan. 1872
54000	Richmond Consols, s, Nevada*†	5 0 0	7½	7 7½	2 1 6	0 5 0	Dec. 1874
120000	Scottish Australian Mining Co.*†	1 0 0	1⅜	1⅜ 1⅜	15 per cent.		Nov. 1874
112500	Sierra Buttes, g, California*†	2 0 0	2¼	1¾	1 8 0	0 2 0	Dec. 1873
60000	South Aurora, s, Nevada*	5 0 0	⅜	⅜ ¾	0 14 2	0 2 0	Nov. 1873
£253000	St. John del Rey*† (£5 stock and multiples dealt in)			260 265	10 p. ct. for ½ year		Dec. 1874
15000	Sweetland Creek, g, California*†	4 0 0	2⅞	2⅝ 2⅞	3 0 0	0 2 0	Dec. 1874
20000	Tolima, g, s* (6000 sh. are £5 f. pd.)	4 10 0	3¼	3 3¼	0 11 6	0 6 6	May 1874
500	Westphalian, s-l, c, Prussia*	20 0 0	—		54 0 0	20 0 0	Dec. 1873
15000	Western Andes, s* (New Granada)	5 0 0	5¼	4½ 5	1 13 4	0 10 0	Oct. 1874

NON-DIVIDEND FOREIGN MINES.

Shares	Mines	Paid	Last Pr.	Clos. Pr.	Last Call
20000	Anglo-Australian, g, Victoria*	2 10 0	—		Sept. 1872
20000	Australian United, g, Victoria*†	2 10 0	1½	1¼ 1½	Fully pd.
3000	Bellavista, s, Peru* (£10 shares)	10 0 0	—		Fully pd.
30000	Blue Tent, hyd., California	5 0 0	5¼	5 5¼	Fully pd.
50000	Braganza, g, Brazil*†	0 15 0	—		Oct. 1870
12000	Camp Floyd, s, Utah*	10 0 0	—		Fully pd.
35000	Cesena Sulphur Company, Romanga, Italy*	10 0 0	—		Fully pd.
50152	Chontales, g, s, Nicaragua*† (and 12,542 of £1 15s.)	2 0 0	¾	½ ⅝	Fully pd.
6000	Clifton, s, Colorado*	5 0 0	—		Feb. 1872
10000	Crescent, g, Plumas County, California*	10 0 0	—		Fully pd.
100000	Cuiaba, g, Minas Geraes, Brazil*	0 17 6	—		June 1872
10000	Douglas, s, Georgetown, Col.	5 0 0	—		Fully pd.
35000	Excelsior Hydraulic Gold Washing Co., California*	6 0 0	—		Dec. 1871
60000	Exchequer, g, s, California*	1 0 0	—		Fully pd.
55000	Frontino and Bolivia, g, New Granada*†	2 0 0	⅜	¼ ⅜	Fully pd.
50000	General Brazilian, g*	1 0 0	—		Fully pd.
10000	Goetzel Tunnel Co., Georgetown, Col.	7 0 0	—		Fully pd.
40000	Holcombe Valley, g,* California	1 0 0	—		July 1873
6000	Hornachos,* s-l, (£10 shares)	9 0 0	—		Jan. 1874
20000	Imperial Brazilian Collieries, Brazil*	5 0 0	—		Fully pd.
20000	Independence, g, California*	5 0 0	—	2⅝ 3	Fully pd.
20000	I. X. L., g, s, California*	5 0 0	—		Fully pd.
50000	Javali, g, Nicaragua*	2 0 0	6s.	⅛ ¼	Fully pd.
12000	Lanestosa,* l, z, Viscaya, Spain (£2 shares)	1 12 6	—		Sept. 1874
65000	London and California, g*†	2 0 0	¾	⅝ ⅞	Fully pd.
75000	Malabar, g, Colombia* (65000 issued)	1 0 0	¾	⅜ ¾	Fully pd.
4000	Malaga, l, Spain*	10 0 0	—		Fully pd.
40000	Malpaso, g, Colombia* (10000 pref. shares, 15s. paid)	1 0 0	¾	⅜ ⅞	Fully pd.
12000	Menzenberg, c, Honnef, Germany*	5 5 0	—		Fully pd.
14000	Montague & Waverley Gold Quartz Crushing Co.,* N.Scot.	2 0 0	—		Allotment
6000	Monte Loreto, g, c, Italy*	5 0 0	—		Fully pd.
15000	New Pacific, g, s, Nevada*	0 10 0	⅜	⅛ ¼	Dec. 1874
66000	New Quebrada, c, Venezuela*	5 0 0	3¼	3 3¼	Fully pd.
50000	New Rosario, s, Mexico*	1 0 0	⅝	¼ ⅜	Fully pd.
20000	New Zealand Kapanga, g, Coromandel*	5 0 0	1¼	1 1½	Fully pd.
10000	Newfoundland,* l	10 0 0	—		Fully pd.
20000	North American, g*	4 0 0	—		Fully pd.
50000	Panulcillo, c, Chili*† (£80000 debentures)	4 0 0	1	⅜ ⅜	Fully pd.
80000	Pestarena United, g, Italy*†	3 0 0	—		Fully pd.
50000	Rica, g, Colombia* (40000 issued)	1 0 0	⅜	¼ ⅜	Fully pd.
100000	Rio Tinto,* c, Huelva, Spain	10 0 0	11	9¾ 10¼	Jan. 1874
100000	Rossa Grande, g, Brazil*† (£1 shares)	0 19 0	¼	⅛ ¼	July 1872
32500	Ruby Consolidated, s, Nevada*	10 0 0	—		Fully pd.
30000	Russia, c, Orenburg and Uta*†	10 0 0	3¼	2¾ 3¼	Fully pd.
25000	San Pedro, c, Chili*	2 0 0	1¼		Fully pd.
30000	Santa Barbara,* g, Brazil (10000 new 10s. sh., 2s. 6d. pd.)	0 9 6	⅝	¼ ⅜	Mar. 1872
10000	Silver Plume, s, Colorado*	1 0 0	—		Fully pd.
37500	Snowdrift, s, Colorado*	2 0 0	—		Fully pd.
23000	St. Lawrence, g,* California	5 0 0	—		Fully pd.
30000	Tecoma, s, Utah*	10 0 0	⅜	1¼ 1½	Fully pd.
30000	Thornhill Reef, g, Australia*	1 0 0	—		Fully pd.
48174	United Mexican, s, Mexico*†‡	28 7 8	3¼	2¾ 3	May 1868
14000	Utah, g, s-l, Utah*	5 0 0	¼	⅛ ¼	Fully pd.
35000	Victoria (London)*, g, Australia (25,600 sh. 16s. pd.)	1 0 0	—		Fully pd.
75000	Yorke Peninsula, c, South Australia	1 0 0	⅜	⅜ ⅜	Fully pd.
40000	Yorke Peninsula, c, South Australia Preference	1 0 0	1⅜	¾ 1	Fully pd.

§ Have made calls since last dividend was paid.

NON-DIVIDEND MINES.

Shares	Mines	Paid	Last Pr.	Clos. Pr.
25000	Aberdaunant, l, Llanidloes*	1 0 0	1⅜	1¼ 1⅜
10000	Aberystwith,* s-l, Cardigan	5 0 0	—	
12000	Assheton, l, Carnarvonshire*	5 0 0	1½	1¼ 1½
50000	Ballycummisk,* c, Schull	2 0 0	—	
12000	Bedford Consols, c, Tavistock	1 7 0	—	
12000	Bedford United, c, Tavistock	1 17 6	⅝	½ ⅝
25000	Belstone,* c, Devon (3000 sh. 10s. pd.)	1 0 0	2	1½ 2
5000	Blue Hills, t, c, St. Agnes	2 4 6	—	
15000	Bog, l, Shropshire*	2 0 0	⅝	⅜ ⅝
12000	Bowden Hill,* mn	1 0 0	—	
20000	Brynambor, l, Cardigan	1 0 0	—	
30000	Burrow & Butson,* t, c, bl, St. Agnes	1 0 0	—	
20000	Burra Burra,* t, c, bl, Kenwyn	1 0 0	—	
5468	Bwadrain, s-l, Cardigan* (£4 shares)	3 16 0	—	
4896	Bwlch Consols, s-l, Cardigan*‡ (£5 sh.)	4 17 6	—	
12000	Cae Gynon, l, Cardiganshire*†	2 0 0	—	
30000	Caldbeck Fells, l, Cumberland*	2 0 0	—	
600	Carden* (£10 shares)	4 0 0	—	
5584	Carn Camborne, c, t, Camborne	5 3 6	¼	⅛ ¼
10000	Castle Gate, t, St. Colomb*	1 0 0	—	
10000	Cathedral, t, c, Gwennap*	1 10 0	1	¾ 1
3000	Cefn Brwyno (lim. to £5)	5 0 0	—	
10000	Central Van,* l, bl, Llanidloes	5 0 0	—	
24000	Court Grange, s l, Cardiganshire	1 0 0	1	¾ 1
24051	Crenver & Abraham*† (25949 sh. £1)	2 0 0	⅛	⅜ ⅛
15000	Cwm Bychan,* s.l, Montgomery	1 0 0	—	
15000	Cwm Nant Ddu,* l, Montgomery	1 0 0	—	
10000	Cwm Ricket and Maesnant, l, Mont.*	2 11 0	—	
256	Cwmystwith, l, Cardiganshire‡	60 0 0	—	
15000	Deer Park, t, c, Tavistock	2 0 0	—	
7500	Denbighshire Consolidated, l*	3 0 0	3	2 3
656	Ding Dong, t, Gulval	49 14 6	4	5 7
12000	Dolwen Consols, l, Cardigan*	1 0 0	—	
10000	Duchy Great Consols, c, Calstock	3 0 0	—	
15000	Dyliffe,* l, Montgomeryshire	6 0 0	—	
512	East Basset, c, Redruth†‡	73 10 0	4	3 4
800	East Black Craig,* l., Scotland	25 0 0	—	
3000	East Boscaswell, t, St. Just	5 0 0	—	
6000	East Bottle Hill Cons., t, c, Plympton	3 0 0	—	
4000	East Chiverton, l, Perranzabuloe	6 5 0	1⅜	1¼ 1⅜
3000	East Dolcoath, t, Illogan	10 0 0	—	
6000	East Grenville, c, Camborne	7 2 6	⅝	⅜ ⅝
4000	East Gunnislake and So. Bedford, c.	13 13 0	—	
50000	East Llangynog, l, Montgomery*	2 0 0	—	
30000	E. Nant-y-mwyn,* l, Brecknockshire	1 0 0	—	
15000	East Van, l, Llanidloes*	5 0 0	1	¾ 1
20000	Elgar,* s-l, Cardiganshire	1 0 0	—	
5000	Flintshire,* l	6 0 0	—	
12800	Florence and Tonkin United* l.	0 10 0	—	
10000	Franco Consols, t, c*	1 0 0	—	
5000	Frank Mills, l, Christow	4 16 0	⅝	⅜ ⅝
8000	Fronvellan, l, Mont.* [4000 sh. fy. pd.]	0 15 0	—	
18000	Furze Hill, t, Tavis.*	1 0 0	—	
3950	Gawton, c, Tavistock	3 17 6	⅝	⅜ ⅝
5000	Gem, t, Whitchurch	2 10 0	—	
12500	Gilfach, s-l, Llangadock	2 0 0	—	
10000	Glan Severn, s-l, Flintshire	1 0 0	—	
15000	Gobbett, t, Dartmoor	1 0 0	1⅝	1⅜ 1⅝
12000	Goginan, and Level Newydd, Card., l	1 5 0	—	
7500	Gorsedd and Merllyn Consols, l, Flint	2 10 0	1½	1 1½
10000	Great Mountain, s-l, Carnarvon*	1 0 0	—	
2000	Great Retallack, s-l, b, Perranzabuloe	3 8 0	—	
4400	Gt. West Chiverton, s-l (8000 shares)	2 10 0	—	
4096	Great Wh. Lovell, t, Wendron	3 4 0	—	
12000	Islay, l, Scotland*	1 0 0	—	
6000	Keswick United, l*	5 0 0	—	
6000	Killifreth, t, Chacewater	1 2 0	—	
50000	Kingston Valley, l, Cornwall	1 0 0	1¼	1⅛ 1¼
12000	Ladywell,* l, Salop	2 10 0	3	2⅝ 2⅞
2500	Levant, c, t, St. Just	8 10 0	—	
10000	Llanarmon, Denbigh	3 0 0	—	
20000	Llanidloes Wh. Van,* l, Montgomery	1 0 0	3½	3 3½
14000	Llanidloes, l, Montgomery*	3 0 0	4	3½ 4
30000	Llanrwst, l, Carnarvon	2 0 0	2½	2¾ 2⅞
17000	Llywernog, l, Cardiganshire	0 16 0	—	
9000	Marke Valley, c, Caradon*	4 18 6	1⅜	1⅛ 1⅜
6000	Medlyn Moor, t, Wendron	0 12 10	—	
8000	Mellanear, c, Hayle*	4 0 0	—	
25000	Mount Dalby, s-l, Isle of Man*	1 0 0	—	
2524	Nangiles, t, c, Kea	9 14 0	⅝	¼ ⅜
4000	Nanty, l, Montgomeryshire*	1 0 0	—	
2000	Nant y-Ricket,* c, l, Montgom.	5 0 0	—	
10000	New Beldon, l, Northumberland*	1 0 0	—	
20000	New Consols, c, Tavistock*	3 0 0	3	2 2½
8000	New Dolcoath, t, c, Camborne*	3 0 0	1⅝	1 1⅛
15000	New Fowey Consols, t, St. Blazey*	3 0 0	½	⅜ ½
4096	New East Lovell, t, Wendron	0 10 0	—	
2000	New Hendra, t, Breage	2 7 0	1¼	1 1¼
6000	New Hobb's Hill, t, Liskeard*	2 0 0	2¼	1¾ 2¼
6400	New Pembroke, t, c, Par Station	5 4 6	¾	⅝ ¾
5000	New Rosewarne, c, Gwinear	4 17 0	⅜	¼ ⅜
3200	New South Merllyn, l, Flint*	2 10 0	—	
5000	New St. Blazey,* t, Cornwall	0 17 6	—	
1200	New West Rosewarne, t, Gwinear	8 10 0	1¼	1 1¼
4000	New Wh. Grylls, t, Perranuthnoe	0 16 6	—	
1200	New Wh. Seton, c, Camborne	36 16 8	⅝	½ ⅝
25000	North Laxey*	2 0 0	—	
20000	North Prince Patrick,* l, Holywell	1 0 0	1¼	1 1¼
2000	North Wheal Towan, t, c, Illogan	1 19 6	—	
10000	North Pool, c, Illogan* (Reserve 2500)	2 0 0	1	¾ 1
1000	North Rosewarne, c, Gwinear	6 12 6	—	
8000	North Treleigh Wood, t, Redruth*	1 0 0	1	¾ 1
5936	North Treskerby, c, St. Agnes	3 12 10	—	
2000	Old Batholes,* l, Salop	1 10 0	—	
6000	Old Talargoch, l, Flintshire*	2 0 0	3¼	3 3½
2500	Old Tincroft, c, t, Illogan*	4 0 0	4¼	4 4½
4000	Parbola, t, Camborne*	5 0 0	5¼	5 5½
16923	Parys Mountain,* c, Anglesea	3 0 0	½	⅜ ½
2000	Penhale Wheal Vor, t, c, Helston*	16 15 0	—	
12000	Pennerley, l, Shropshire*	2 0 0	1½	1¼ 1½
16000	Perkins Beach, l, Salop*	1 0 0	⅜	¼ ⅜
12000	Plynlimmon, l, Llanidloes*	2 5 0	⅝	⅜ ⅝
1000	Polrose, t, Breage	10 12 6	—	
2000	Prideaux Wood, t, Llanivery	5 0 0	—	
12800	Prince of Wales, c, Calstock‡	1 5 6	⅝	⅝
15000	Rookhope Valley, l, Durham*	4 0 0	¾	½ ¾
5869	Rosewall Hill and Ransom, t	4 5 0	⅜	¼ ⅜
6000	Rosewarne United, c, t, Gwinear	1 10 0	—	
3000	Russell, s-l, Swymbridge	0 6 0	—	
6123	South Condurrow, t, c, Camborne‡	6 5 6	5¼	4¾ 5¼
512	South Dolcoath, c, t, Redruth	12 5 0	1⅜	1 1⅛
5000	South Great Work, t, St. Hilary	2 14 0	—	
12000	South Kit Hill, t, Callington*	1 0 0	—	
12000	South Lisburne, l, bl, Cardigan*	0 12 6	—	
700	South Margaret, t, Ludgvan	1 10 0	—	
12000	South Phœnix, t, c, Linkinhorne*	1 0 0	—	
18000	South Roman Gravels, l, Salop*	1 10 0	1⅜	¾ 1
6000	South Roskear, t, c, Camborne	6 0 0	—	
6000	South Tolcarne, t, c, Camborne	0 18 0	⅜	¼ ⅜
12000	South Van,* l, Montgomeryshire	1 0 0	—	
3000	South Ward, l, Beerferris	3 0 0	1¼	1 1¼
937	South Wheal Crofty, c, Illogan	34 10 10	17	14 16
496	South Wh. Frances, c, Illogan†	48 3 9	15	12 14
6000	South Wheal Kitty, t, St. Agnes	0 5 0	—	
4000	St. Agnes Consols, t*	5 0 0	6	
14000	St. Blazey t.* (£2 10s. shares)	2 0 0	1½	1¼ 1⅜
10000	St. David's,* s-l, Holywell	1 0 0	1¼	1 1¼
940	St. Ives Consols, t, St. Ives	12 15 0	1½	1½ 1¾
6000	St. Lawrence, Amal., l, Flintshire*	2 0 0	—	
10000	St. Patrick, l, Halkin, Holywell*	1 0 0	½	1 1⅜
6000	Success, &c., l, Derb. (12,000l. called)	1 0 0	—	
2000	Tamar Consols, s-l, Lifton, Devon	1 0 0	1	¾ 1
3879	Tamar Valley, s-l, Beeralston	1 10 0	—	
16400	Teesdale,* l, Durham	0 5 0	1	¾ 1
14000	Teign Valley, l, bar., Bridford	1 0 0	—	
3526	Tin Valley, St. Neot	1 13 6	—	
5000	Treleigh Wood, t, Redruth	4 13 0	4½	4¼ 4½
1024	Treleigh Wood United, t, Redruth	1 5 0	⅜	⅜ ⅜
547	Trelyon Consols	15 0 0	⅜	⅜ ⅜
12000	Trethellan, s-l, Crantock*	2 0 0	—	
7500	Tresellyn, t, Altarnun	2 10 0	—	
2800	Trevarrack, t, c, Uny Lelant	4 10 0	2⅝	2⅜ 2⅝
200	Tucker's Downs, Camborne	2 0 0	—	
12000	Tyllwyd,* s-l, Cardigan	1 0 0	1⅜	1¼ 1⅜
6000	Unity Wood, t, c, Kenwyn	3 0 0	½	⅜ ½
20000	Van Consols, l, Llanidloes*	2 10 0	2¼	2 2¼
1000	Vaughan, s-l, Cardigan	9 0 0	—	
20000	Victoria, t, Perranzabuloe	1 0 0	—	
6000	West Basset, c, Illogan†‡	3 16 8	8¼	7¾ 8¼
20000	West Bryn Celyn,* l, Flintshire	1 0 0	—	
100	West Condurrow, t, c, Camborne	5 0 0	—	
12000	W. Esgair Lle, l, Card.*	2 0 0	2¼	2 2¼
5000	West Godolphin, t, c, Breage	1 13 6	—	
12000	West Goginan,* Cardiganshire	2 0 0	½	½
15000	West Great Work, t, Breage*	1 0 0	1¼	1 1¼
10000	West Llangynog, s-l, Montgomery	2 0 0	—	
12000	West Maria & Fortescue, t, c, Lamer.	4 9 0	⅜	¼ ⅜
50000	West Milwr, s-l, Flint	1 0 0	—	
12000	West Pant-y-Go, s-l, Flint*	1 0 0	—	
3000	West Phœnix, t, Linkinhorne	0 18 0	—	
1403	West Polbreen, t, St. Agnes	3 5 0	—	
10000	West Roskear, t, s-l, bl, c, Camborne	0 2 0	—	
12000	West Tankerville, l, Salop*	3 0 0	1	½ 1
2000	West Wheal Lucy, t, c, Lelant	1 10 6	—	
6000	West Wheal Gerland, t, c	3 14 0	—	

NON-DIVIDEND MINES—Continued.

Shares	Mines	Paid	Last Pr.	Clos. Pr.
293	West Wheal Seton, c, Camborne†	55 15 0	10	9 10
6000	Wheal Agar, c, Illogan	10 0 0	1½	1⅜ 1½
5000	Wheal Allen,* s-l	1 0 0	—	
6000	Wheal Argus, t, Sancreed	0 10 0	—	
25000	Wheal Arthur, t, c, Calstock*	1 0 0	—	
741	Wheal Basset and Grylls, t	9 18 6	—	
6000	Wheal Coates, t, St. Agnes	2 0 0	—	
6000	Wheal Crebor, c, Tavistock	4 1 0	1⅛	⅞ 1⅛
8400	Wheal Emma, t, c, Buckfastleigh	1 10 0	—	
5179	Wheal Grenville, c, Camborne*	9 12 6	5¼	5¼ 5¾
12000	Wheal Jewell, c, Marazion	1 1 0	—	
12000	Wh. Mary Hutchings,* t, Plympton	1 11 0	4½	4 4½
3000	Wheal Peevor, t, Redruth	5 7 6	5	4¾ 5¼
10000	Wheal Ruby, t, Ludgvan	1 0 0	—	
4568	Wheal Sparnon, t, Redruth	4 0 0	—	
1000	Wheal Speedwell, t, c, Breage	1 0 0	—	
4096	Wheal Uny, t, c, Redruth	12 9 6	4½	3¼ 3¾
6000	Wheal Vincent, t, Alternun	1 11 0	—	
12000	Willoughby, l, Llanrwst	2 10 0	—	
10000	Wye Valley, l, Montgomery*	3 0 0	4	3½ 3¾
1200	Zennor, t, Cornwall	5 0 0	—	

IRON AND COAL COMPANIES.

Shares	Company	Paid	Price		
£15	Albion Steel and Wire Co. [L.]	£10 0 0	10½	10	dis.
5	Alltami Colliery Co. [L.]	5 0 0	par	¼	pm.
100	Ashbury Co. [L.]	90 0 0	40	35	dis.
10	Bagnall, John, and Sons [L.]	10 0 0	8	6	dis.
10	Benhar Coal Co. [L.]	10 0 0	4½	5	pm.
50	Bilbao Iron Ore Co. [L.]	40 0 0	2½	3	pm.
10	Bilson & Crump Meadow Coll. Co. [L.]	10 0 0	½	¾	pm.
25	Birmingham (Blakeley Hall) Coal and Ironstone Company [L.]	25 0 0		—	
4	Blaen Cwmbach Coal Co. [L.]	4 0 0	¼	¾	pm.
50	Blaenavon Iron and Steel Co. [L.]	37 10 0		—	
50	Blochairn Iron Co. [L.]	15 0 0		—	
100	Bolckow, Vaughan, and Co. [L.]...A	35 0 0	19	20	pm.
—	Ditto ditto ...B	30 0 0	18	19	pm.
50	Bowling Iron Co. [L.]	50 0 0		—	
5	Brynkinalt Collieries [L.]	5 0 0		—	
50	Britannia Ironworks [L.]	25 0 0		—	
50	Brown, Bailey, and Dixon [L.]	40 0 0	24	23	dis.
100	Brown, John, and Co. [L.]	70 0 0	10	11	pm.
100	Cammell and Co. [L.]	80 0 0	11	9	dis.
20	Cannock and Huntingdon Coal [L.]	2 0 0			
10	Cardiff & Swansea St. Coal Co. [L.]	5 0 0		—	
10	Cardigan Steel and Wire Co. [L.]	7 10 0	7	6¼	dis.
10	Central Swedish Iron and Steel [L.]	10 0 0	4	6	
5	Chapel House Colliery	5 0 0	½ dis.	par	
50	Charlton Iron Co. [L.]	35 0 0	24	23	dis.
50	Chatterley Iron Co. [L.]	40 0 0	13	12	dis.
10	Chillington Iron Co. [L.]	10 0 0	6½	5½	dis.
1	Clee Hill Colliery Co. [L.]	1 0 0	⅜	⅛	dis.
10	Consett Iron Co. [L.]	7 10 0	14½	15	pm.
1	Consett Spanish Ore [L.]	1 0 0	¼	⅛	dis.
50	Cooke, William, and Co. [L.]	20 0 0	8	7	dis.
20	Darlington Iron Co. [L.]	8 0 0	3	2	dis.
10	Davis's Merthyr Colliery Co. [L.]	10 0 0		—	
50	Davy Brothers [L.]	22 10 0	14½	15	pm.
32	Ebbw Vale Co. [L.]	29 0 0	9	8	dis.
6	Fairbairn Engineering	5 0 0	2⅛	1½	dis.
10	General Mining Ass. [L.] (£1 returned)	9 0 0	7	9	
10	Glasgow Port Washington [L.]	6 0 0	3½	3¼	dis.
20	Great Western Coal Co. [L.]	17 0 0			
2	Gwyngwillim Colliery Co. [L.]	2 0 0		—	
10	Hendreforgan Colliery Co. [L.]	5 0 0		—	
15	Hopkins, Gilkes, and Co. [L.]	10 0 0		—	
10	Ifton Rhyn Colliery Co. [L.]	10 0 0	3½	3	dis.
5	Killan and Three Crosses Colliery [L.]	3 10 0	8¼	7¾	dis.
50	Knowles, Andrew, and Sons [L.]	17 0 0	3¼	4	pm.
10	Llay Hall Coal, Iron, & Firebrick [L.]	10 0 0	⅜ dis.	par	
5	Littledean Woodside Coll. Co. [L.]	5 0 0		—	
10	Llangennech Colliery Co. [L.]	10 0 0		—	
50	Llynvi, Ogmore, & Tondu Co. [L.]	46 0 0			
13	Llynvi Valley Col. Co. [L.] 15 p.c. pref.	10 0 0	13	12	dis.
10	Lydney and Wigpool Iron Ore [L.]	7 5 0	3½	3	dis.
10	Marbella Iron Ore Co. [L.]	10 0 0	5⅜	5	dis.
10	Merry and Cuninghame [L.]	3 10 0	¼ dis.	¼	pm.
6	Mersey Steel and Iron Co. [L.]	5 0 0		—	
5	Mold-Argoed Colliery Co. [L.]	5 0 0			
10	Monkland Iron and Coal Co. [L.]	10 0 0	6¼	6	dis.
10	Midland Iron Co. [L.]	5 0 0	7	7¼	pm.
4	Mwyndy Iron Ore [L.]	3 10 0	2	1½	dis.
100	Nant-y-Glo and Blaina (8 p. c. pref.)	100 0 0	35	40	
10	Neepsend Rolling Mills [L.]	3 0 0	par	½	pm.
1	Nerbudda Coal and Iron	0 8 0	¼	⅛	dis.
20	New Sharlston Collieries [L.] Pref.	18 0 0	12	11	dis.
10	Newport Abercarn Coal Co. [L.]	5 0 0	1	½	dis.
10	Northmptn. Coal, Iron & Wagon [L.]	8 0 0		—	
10	Northfield Iron Co. [L.]	6 0 0	1¾	1¼	dis.
35	Palmer's Shipbuilding and Iron [L.]	25 0 0	11	9	dis.
100	Parkgate Iron Co. [L.]	65 0 0	24	25	pm.
20	Patent Shaft and Axletree [L.]	10 0 0	4½	5	pm.
20	Pelsall Coal and Iron [L.]	15 0 0	4	2	dis.
50	Phœnix Bessemer Co. [L.]	40 0 0	20	19	dis.
50	Rhondda Merthyr Coal Co. [L.]	50 0 0		—	
50	Rhymney Iron Co. [L.]	50 0 0	37	39	
10	Richards and Company [L.]	4 0 0		—	
100	Samuel Fox and Co. [L.]	80 0 0	42	44	pm.
100	Sandwell Park Colliery Co. [L.]	100 0 0		—	
50	Ditto New	1 0 0		—	
50	Shotts Iron Co. [L.]	50 0 0	26	27	pm.
100	Sheepbridge Iron and Coal [L.]	55 0 0	28	28½	pm.
10	Sheffield Forge and Rolling Mill [L.]	2 10 0	¼	⅜	pm.
50	Silkstone & Dodworth Cl. & Iron [L.]	22 0 0	1⅜	1	dis.
5	Silkstone Fall Colliery Co. [L.]	5 0 0	4	3	dis.
20	Skerne Ironworks [L.]	20 0 0		—	
50	Somorrostro Iron Co. [L.]	50 0 0		—	
20	South Wales Coal Co. [L.]	17 0 0	3	4	pm.
100	Staveley Iron and Coal Co. [L.]	60 0 0	59	60	pm.
100	Ditto ditto New	10 0 0	10¼	10½	pm.
10	Stranton Iron and Steel Co. [L.]	8 0 0		—	
20	South Cleveland Ironworks [L.]	20 0 0	12	10	dis.
10	Swansea Valley Steam Coll. Co. [L.]	6 0 0			
100	Thames Iron Company	100 0 0		—	
7½	Titanic Iron and Steel	5 0 0		—	
20	Ulverston Mining Co. [L.]	10 0 0	1	½	dis.
1	United Bituminous Collieries [L.]	1 0 0		—	
10	Vancouver Coal [L.]	6 0 0	¼	1¼	pm.
100	Vickers, Sons, and Co. [L.]	100 0 0	35	45	pm.
50	Welsh Ironworks Co. [L.]	50 0 0		—	
25	W. Cumberland I. and Steel [L.]	20 0 0	10	9	dis.
20	Wedgwood Iron and Coal Co. [L.]	20 0 0	10¼	10¾	
10	West Mostyn Coal [L.] (12 p.c. pref.)	3 0 0	⅛	⅜	pm.
5	West Swansea Colliery Co. [L.]	5 0 0			
10	Whitehaven Iron Co. [L.]	10 0 0		—	
100	Wigan and Whiston Coal Co. [L.]	70 0 0		—	
100	Wigan Coal and Iron Co. [L.]	75 0 0		—	

WAGON COMPANIES.

Shares	Company	Paid	Price		
10	Birmingham Wagon Co. [L.]	10 0 0	17¾	18¾	
20	British Wagon Co. [L.]	10 0 0	4	4¼	pm.
10	Gloucester Wagon Co. [L.]	10 0 0	4¼	4½	pm.
10	Metropolitan Wagon Co. [L.]	5 0 0	3¾	4	pm.
50	Midland Wagon Co. [L.]	50 0 0	42	44	
20	North Central Wagon Co. [L.]	20 0 0	15¼	15¾	pm.
10	North of England Wagon Co. [L.]	3 10 0	par.	½	pm.
10	Parkgate Wagon Co. [L.]	5 0 0	3⅛	3⅝	pm.
20	Sheffield Wagon Co. [L.]	15 0 0	4½	5	pm.
10	Yorkshire Wagon Co. [L.]	10 0 0	4½	5	pm.

TELEGRAPH COMPANIES.

Shares	Company	Paid	Price	
"St."	Anglo-American	100 0 0	73¼	73¾
10	Brazilian Submarine	10 0 0	7	7¼
20	Direct United States Cable	20 0 0	10¼	10¾
10	Eastern	10 0 0	7⅜	7⅝
10	East. Exten., Australia and China	10 0 0	7¼	7⅝
10	Great Northern	10 0 0	10¾	11¼
25	Indo-European	25 0 0	16½	17
10	Mediterranean Extension	10 0 0	3½	4
8	Reuters	8 0 0	11½	12
"St."	Submarine	100 0 0	206	211
10	West India and Panama	10 0 0	3¾	4¼
20	Western and Brazilian	20 0 0	14½	15
$1000	Western Union, 7 per cent. Mort. Bonds	$1000	104	106

MISCELLANEOUS.

Shares	Company	Paid	Price		
10	Anglo-Mexican Mint	10 0 0		—	
25	Copper Miners of Eng. (7 p. c. pref.)	25 0 0	7	8	
5	Diamond Rock Boring	4 0 0	½ dis.	par	
5	Gen. Phos. & Chem. Works Co. [L.]	5 0 0		—	
1	Glaisdale Whinstone Quarry	1 0 0	1	1½	
10	Huntington Copper and Sul. Co.	8 0 0	6	5	dis.
10	Silber Light (ord. sh.)	10 0 0	7	8	
10	Tharsis Sulphur and Copper Co.	10 0 0	23	23½	

b, blende; cl, coal; c, copper; g, gold; l, lead; s, silver; sl, slate; s-l, silver-lead; t, tin; z, zinc.

* Limited Liability Companies; † quoted on the Stock Exchange. ‡ have paid dividends.

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